KV-2566MW/2966MW

RM-827S

SERVICE MANUAL

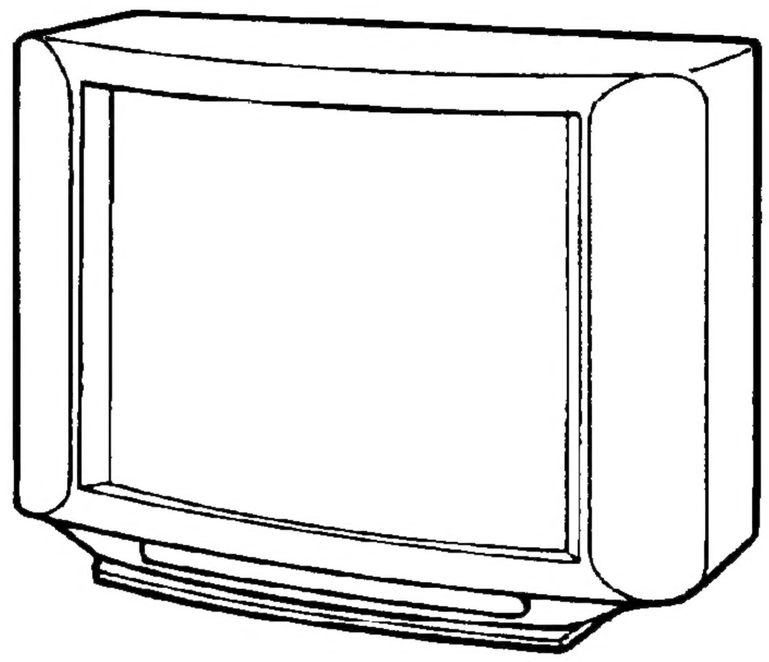
Thailand Model

KV-2566MW

Chassis No. SCC-D29M-A

KV-2966MW

Chassis No. SCC-D29L-A



GP-1A CHASSIS

MODELS OF THE SAME SERIES	
KV-2566/2966MW	
KV-2566/2966MNT	

SPECIFICATIONS

Power requirements 110 - 240V AC, 50/60Hz
Power consumption Indicated on the rear of the TV.
Color system PAL, PAL60, NTSC3.58, NTSC4.43, SECAM

Television system and Channel coverage

Television system	M	B/G	I	D (CHINA)	D/K
Low VHF band	A2-A6	E2-E4	—	1-5	R1-R5
High VHF band	A7-A13	E5-E12	—	6-12	R6-R12
UHF	A14-A79	E21-E69	B21-B68	13-57	R21-R60
CATV	A-8-W+84	S01-S03 S1-S41	—	—	

Audio output 5W+5W
SUPER WOOFER speaker :
15W (100Hz)

Inputs Antenna 75 - ohms
VIDEO INPUT jacks : phono jacks
Video : 1Vp-p, 75 ohms
Audio : 500 m Vrms,
high impedance
S-TERMINAL VIDEO INPUT jack :
4-pin DIN

Outputs VIDEO OUTPUT jacks:phono jacks
Video : 1Vp-p, 75 ohms
Audio : 500 m Vrms,
high impedance

Weight 47.0 kg

Model	KV-2566	KV-2966
Picture tube Apporx. cm (inches)	64 (25)	72.4 (29)
Dimensions (w/h/d, mm)	689 × 513 × 494	782 × 577 × 515
Weight (kg)	38	47

Design and specifications are subject to change without notice.

MICROFILM

TRINITRON® COLOR TV

SONY®

TABLE OF CONTENTS

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1
GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remein as in the manual.

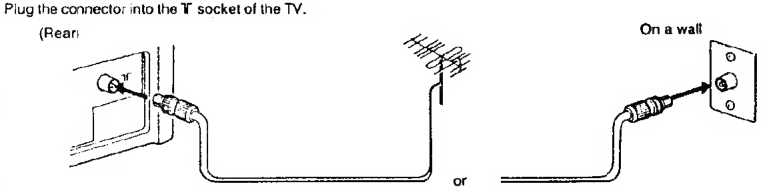
Operating Instructions

Before operating the TV, please read this manual thoroughly and retain it for future reference.

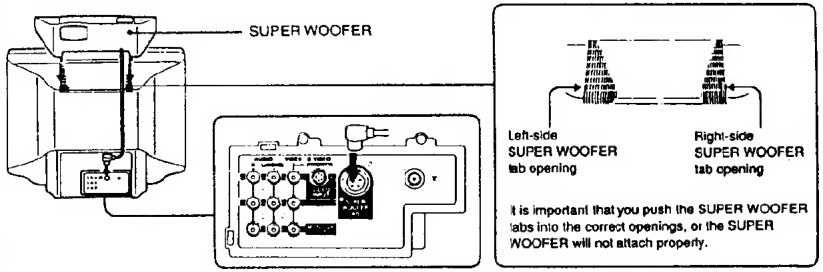
1-1. ANTENNA CONNECTION

To connect a VHF antenna or a combination VHF/UHF antenna – 75-ohm coaxial cable (round)

Plug the connector into the 75 socket of the TV.

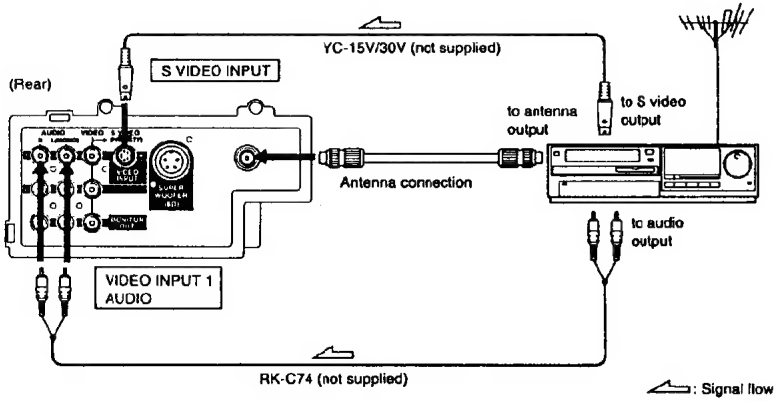


1-2. CONNECTING THE SUPER WOOFER

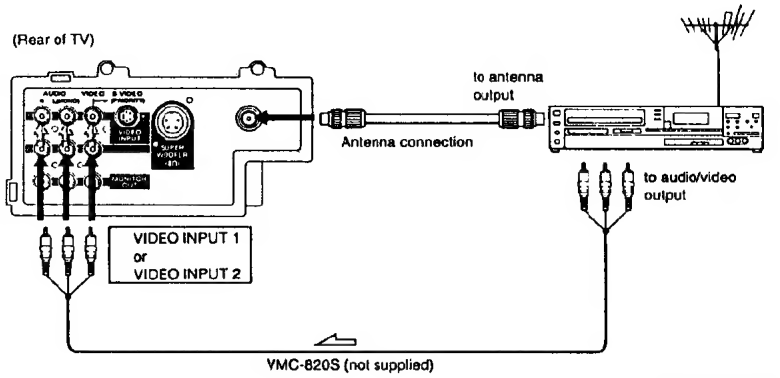


1-3. CONNECTING A VTR OR OTHER EQUIPMENT

Connecting a VTR or Other Equipment Equipped with an S Video Output Jack

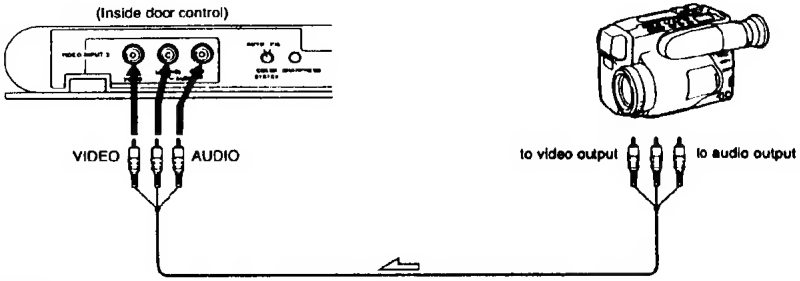


Connecting a VTR or Other Equipment not Equipped with an S Video Output Jack



Connecting a VTR or Camcorder to the VIDEO INPUT Jacks on the Front

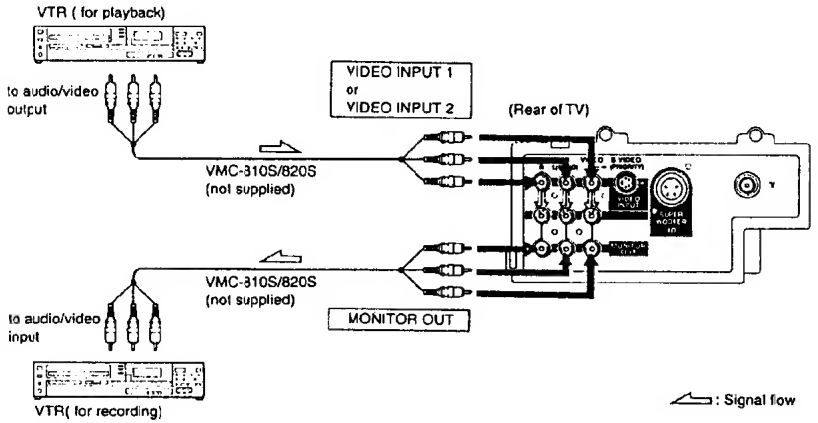
This TV is equipped with 2 sets of VIDEO INPUT 2 jacks. 2 sets are not available to be used at the same time. When using equipment connected, turn off other equipment not in use. For connection, use a commercially available connecting cord.



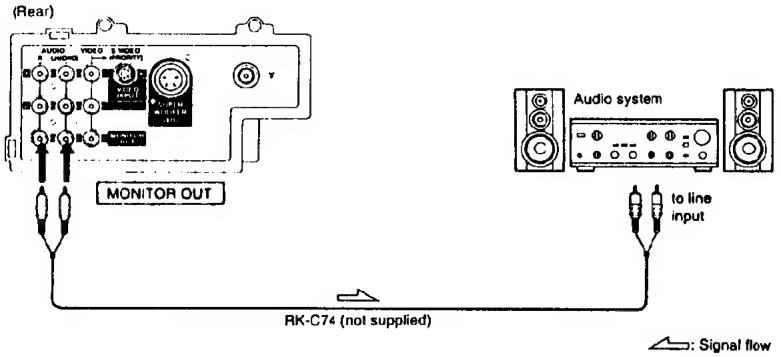
Note

If you connect monaural equipment, connect the AUDIO output of the VTR to L (MONO) jack of VIDEO INPUT 2. The monaural sound will be heard from both speakers.

Connecting two VTRs for Tape Editing



Connecting an Audio System



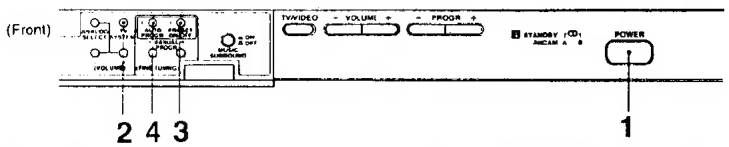
Note

If you connect monaural equipment, connect the equipment to the L (MONO) jack.
The monaural sound will be heard from both speakers.

1-4. PRESETTING TV CHANNELS

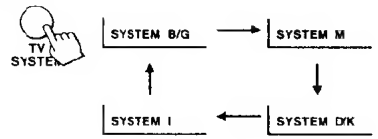
Presetting TV Channels Automatically

You can preset up to 30 channels automatically to the program position numbers (0 to 29) in numerical sequence from channel number 1.



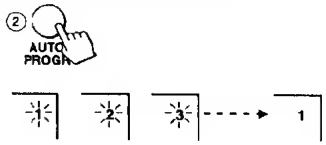
1 Press the POWER button.

2 Press the TV SYSTEM button to select your local TV system.



3 Press the PRESET ON/OFF button ①.

4 Press the AUTO PROGR button ②.



Manual Presetting

To change the program number for a channel, or to receive a channel of weak signal, preset the channel manually.
Example: To preset a channel in program number 8

1 Press the PRESET ON/OFF button.

2 Press the PROGR +/– buttons until "8" appears.

3 Press the TV SYSTEM button to select your TV system.

4 Press the MANUAL PROGR +/– buttons until the channel you want appears.

5 Press the PRESET ON/OFF button.

To preset other channels
Repeat steps 1 through 5.

Skipping Program Positions

You can skip the unused or undesired program position when you are selecting a program using PROGR +/– buttons.
Example: To skip program position 8

1 Press the PROGR +/– buttons until "8" appears.

2 Press the PRESET ON/OFF button.

3 Press the PIC MODE button on the Remote Commander.

4 Press the PRESET ON/OFF button.

To skip other channels
Repeat steps 1 through 3.

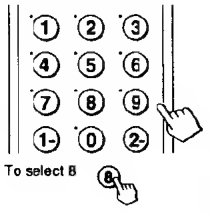
To cancel the skip setting
Preset a channel onto the position number, following the steps in "Presetting TV channels automatically" or "Presetting channels directly".

1-5. WACHING THE TV

To switch on or off the TV

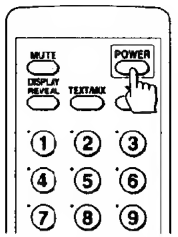
The TV power is turned on or turned off completely.

To select a channel



To adjust the volume

To set the TV to standby mode



To turn on the TV, press the POWER button again or press the channel number buttons or the PROGR +/– buttons.

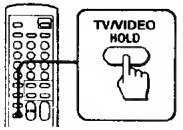
Note

You can also use the buttons on the TV that have the same function.

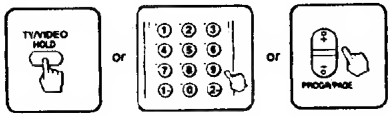
1-6. WATCHING THE VIDEO INPUT

1 Press the TV/VIDEO button on the Remote Commander.

2 Set the VTR to playback mode.



To return to TV mode
Press the TV/VIDEO button, the channel number buttons, or PROGR +/– buttons.



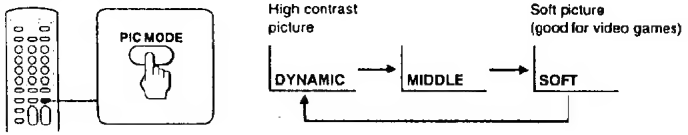
Note

Do not use the VTRs connected to the front and rear A/V connectors simultaneously. When you use a VTR, turn off or disconnect another VTR.

1-7. ADJUSTING THE PICTURE AND SOUND

Selecting the Picture Mode

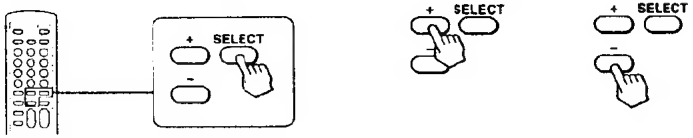
Press the PIC MODE button.

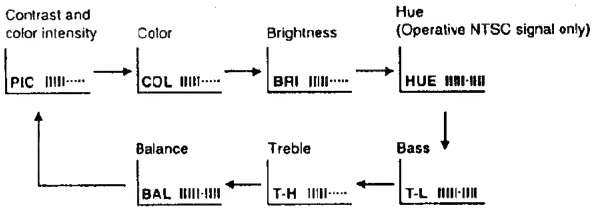


Adjusting the Picture and Sound Quality

1 Select the adjustment item using SELECT button on the Remote Commander (for ANALOG SELECT button on the TV)

2 Adjust using the + and – buttons.

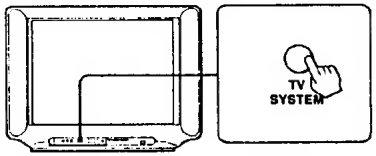




Note

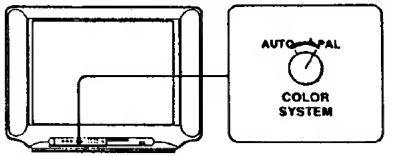
If you change the PIC MODE setting after making the above adjustments, the adjustment changes according to the PIC MODE setting, and COL (color), BRI (brightness) and HUE return to their original factory settings.

To Set TV SYSTEM



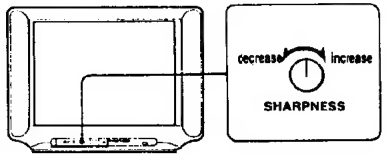
If the sound is distorted or noisy, or color is abnormal while receiving a program through the VHF/UHF terminal, press the TV SYSTEM button until clear sound or normal color is obtained. This setting is retained in the program position.

To Set COLOR SYSTEM



Normally, set COLOR SYSTEM to AUTO.
If the color reproduction is abnormal (for example, the picture turns red or blue) while receiving PAL and PAL 60 playback signal, set to PAL. The picture color will become normal.

Adjusting SHARPNESS

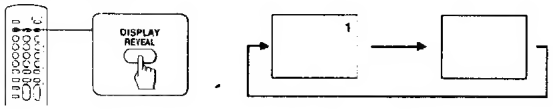


Turn SHARPNESS clockwise to increase sharpness and counterclockwise to decrease sharpness.

1-8. USING CONVENIENT FEATURES

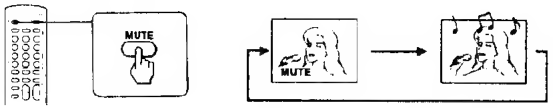
Turning On or Off the On-screen Display

Press the DISPLAY button.



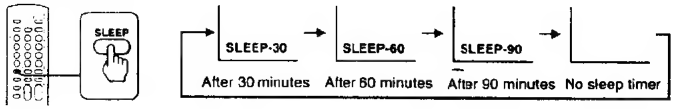
Muting

Press the MUTE button.



Setting the Sleep Timer

The TV will be turned off after 30, 60, or 90 minutes.
Press the SLEEP button.



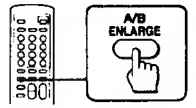
To cancel the sleep timer
Press the SLEEP button until the sleep display disappears.

Setting a MUSIC SURROUND Mode

Set MUSIC SURROUND to ON during a stereo sound reproduction.
You receive a theatrical audio effect or live concert effect sound.
This function does not work for monaural sound.

Selecting the Sound (Stereo or Bilingual) You Want

Press the A/B/MTS button until you receive the sound you want.
The sound changes and the corresponding indicator lights up as shown in the following table.

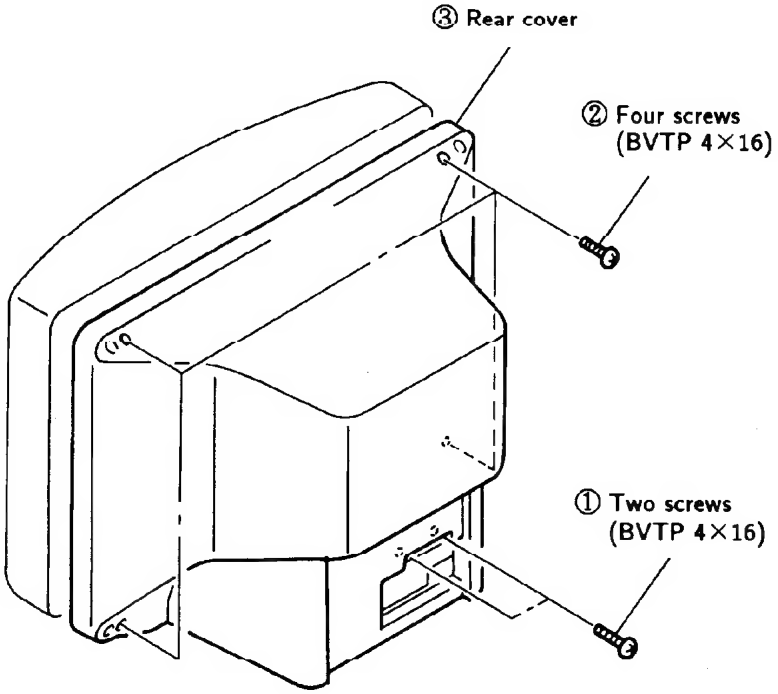


Notes

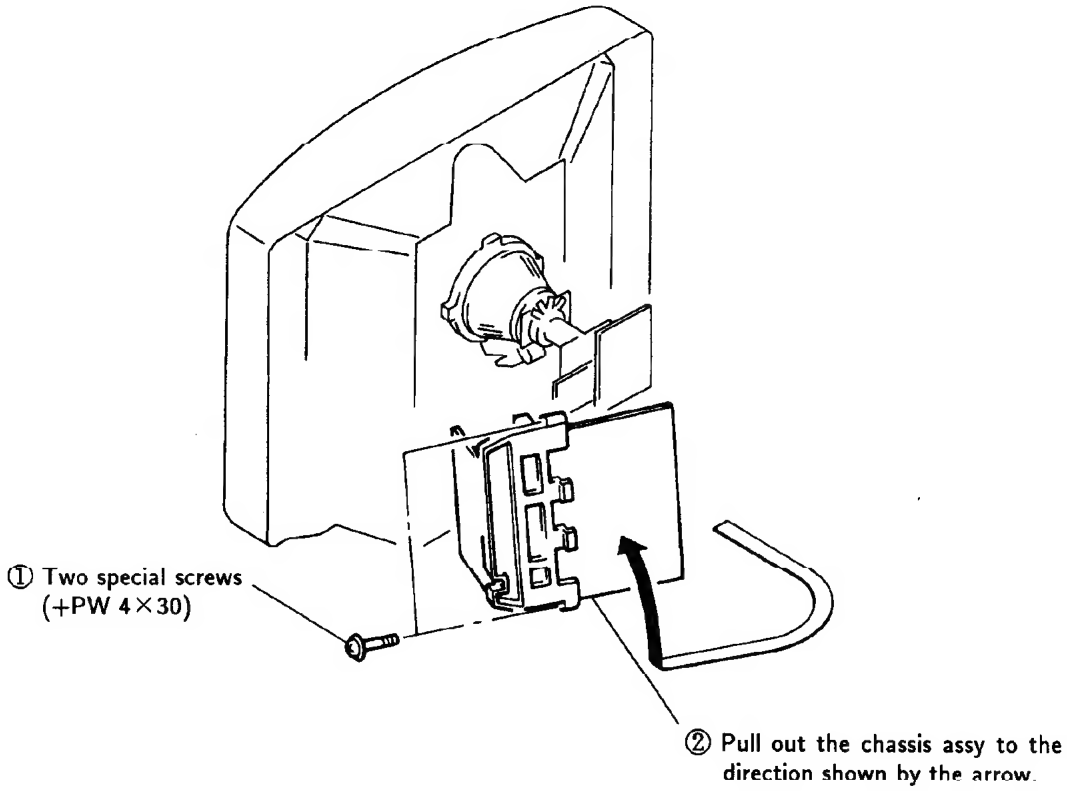
- If the signal is very weak, the sound becomes monaural.
- If the stereo sound is noisy, select "regular" or "mono".
  The sound becomes monaural and the noise will be reduced.

SECTION 2
DISASSEMBLY

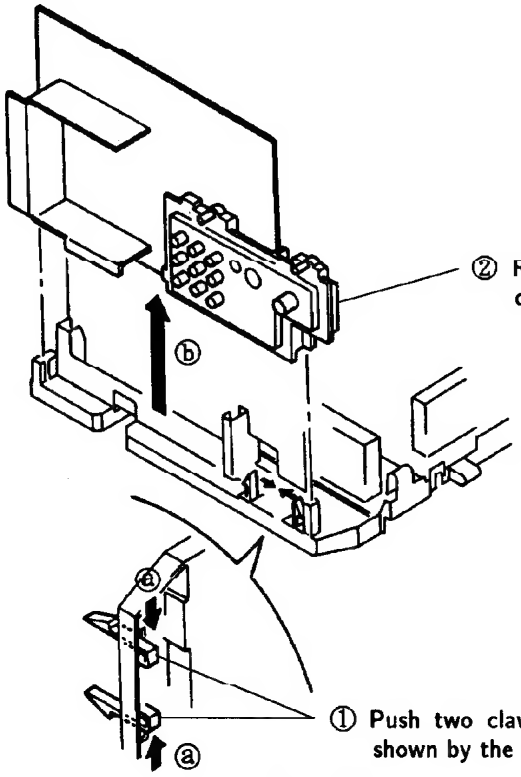
2-1. REAR COVER REMOVAL



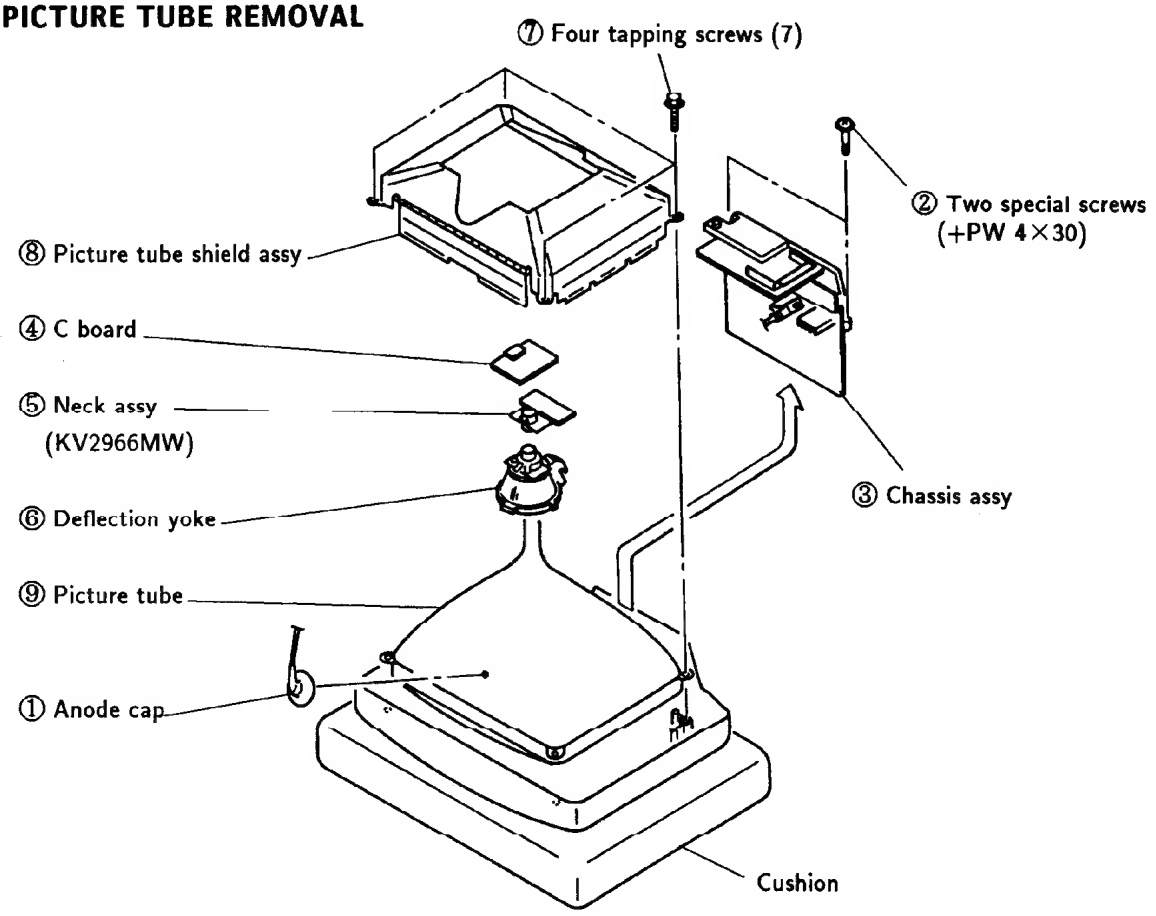
2-2. SERVICE POSITION



2-3. K BOARD REMOVAL



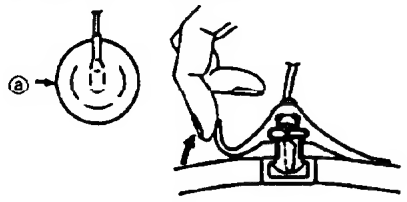
2-4. PICTURE TUBE REMOVAL



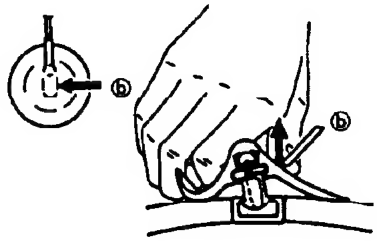
• REMOVAL OF ANODE-CAP

NOTE : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT chield or carbon painted on the CRT, after removing the anode.

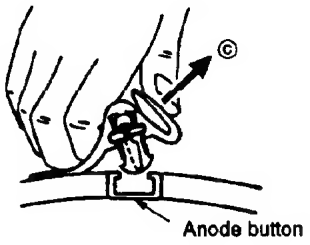
• REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.



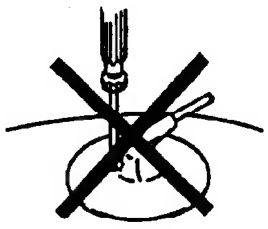
③ When one side of the rubber cap is separated from the anode button. the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

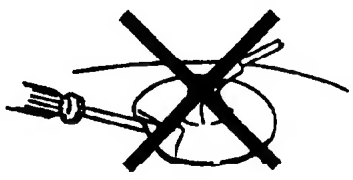
• HOW TO HANDLE AN ANODE-CAP

① Don't hurt the surface of anode-caps with sharp shaped material!

② Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.

③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.





SECTION 3
SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

The control and switch below should be set as follows unless otherwise noted :

PICTURE control ..... normal
BRIGHTNESS control ..... normal

Perform the adjustments in order as follows:

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

Note: Test Equipment Required.

1. Color-bar Pattern Generator
2. Degausser
3. Digital multimeter

Preparations :

- Feed in the white pattern signal.
- Before starting degauss the entire screen.

3-1. BEAM LANDING

1. Input the white signal with the pattern generator.
   Contrast } normal
   Bightness }
2. Position neck ass'y as shown in Fig 3-2. (29 inch only)
3. Set the pattern generator raster signal to red.
4. Move the deflection yoke to the rear and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side. (See Fig. 3-1 through 3-3.)
5. Move the deflection yoke forward and adjust so that entire screen is red. (See Fig. 3-1.)
6. Switch the raster signal to blue, then to green and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Fig. 3-4.)

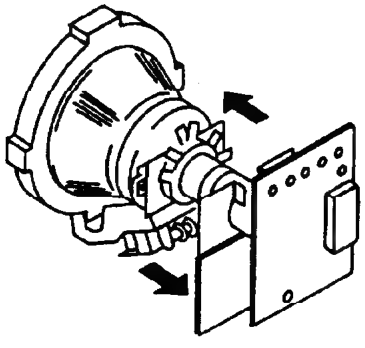


Fig. 3-1

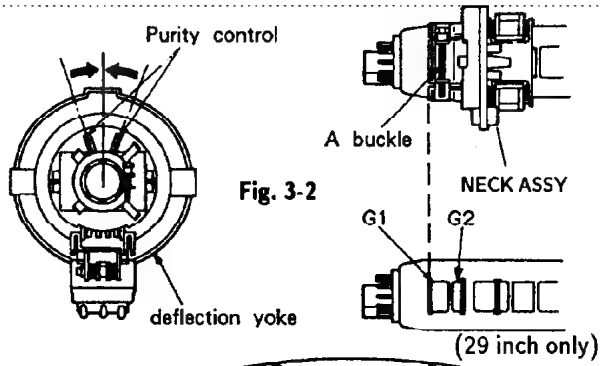


Fig. 3-2

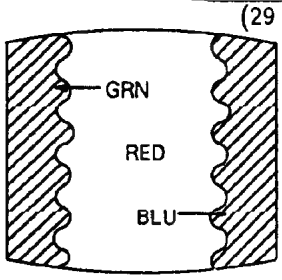


Fig. 3-3

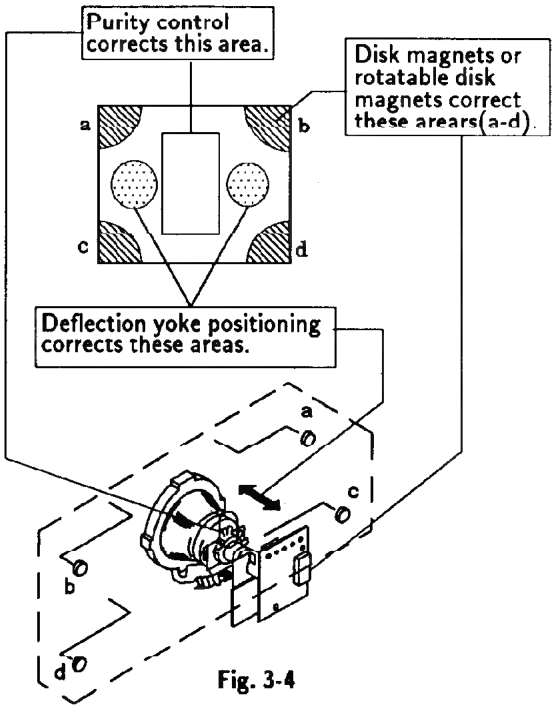


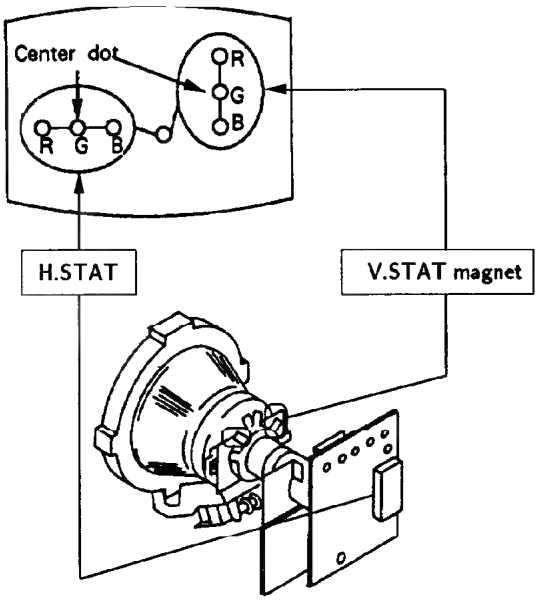
Fig. 3-4

3-2. CONVERGENCE

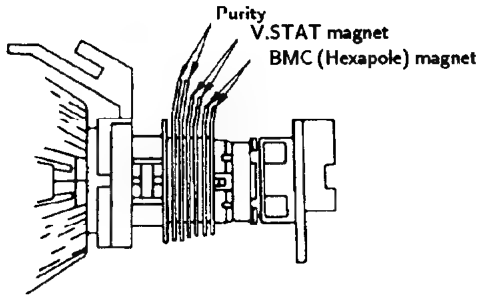
Preparations :

- Before starting perform FOCUS, H.SIZE, V.LIN and V.SIZE adjustments.
- Set BRIGHTNESS control to minimum.
- Feed in dot pattern.

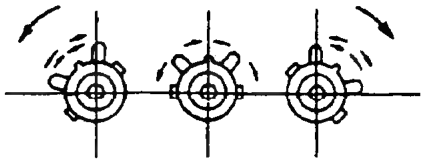
(1) Horizontal and Vertical Static Convergence



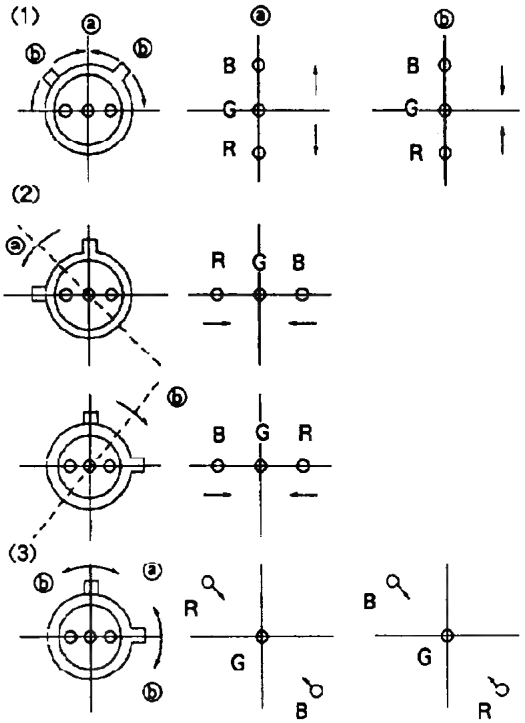
1. Adjust H.STAT VR to converge red , green and blue dots in the center of the screen. (Horizontal movement)
2. Adjust V.STAT magnet to converge red, green and blue dots in the center of the screen. (Vertical movement)
3. If the red, green and blue dots do not coverge in the center of the screen with H.STAT VR, perform horizontal convergence adjustment using H.STAT VR and V.STAT magnet as shown below.(In this case, H.STAT VR and V.STAT magnet effect each other.)



- Tilt the V.STAT magnet and adjust static convergence to open or close the V.STAT magnet.



4. When the V.STAT magnet is moved in the direction of arrow ⓐ and ⓑ ,red, green and blue dots move as shown below.

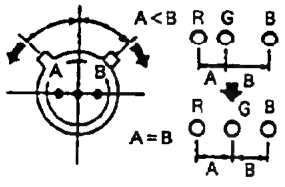


If the blue dot do not Converge with red and green dots, perform following steps.

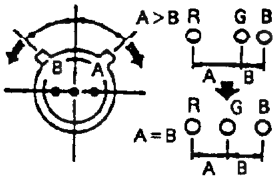
- HMC and VMC correction for BMC (Hexapole) Magnet.

1. HMC (Horizontal Miss Convergence) correction and motion of the Electron Beam with the BMC Magnet.

HMC correction (A)

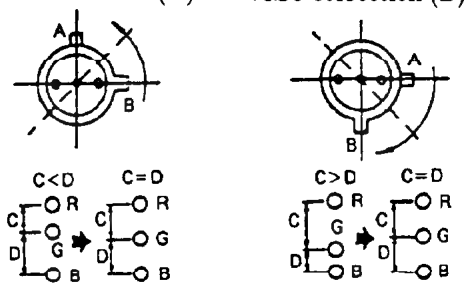


HMC correction (B)



2. VMC (Vertical Miss Convergence) correction and motion of the Electron Beem with the BMC Magnet.

VMC correction (A)



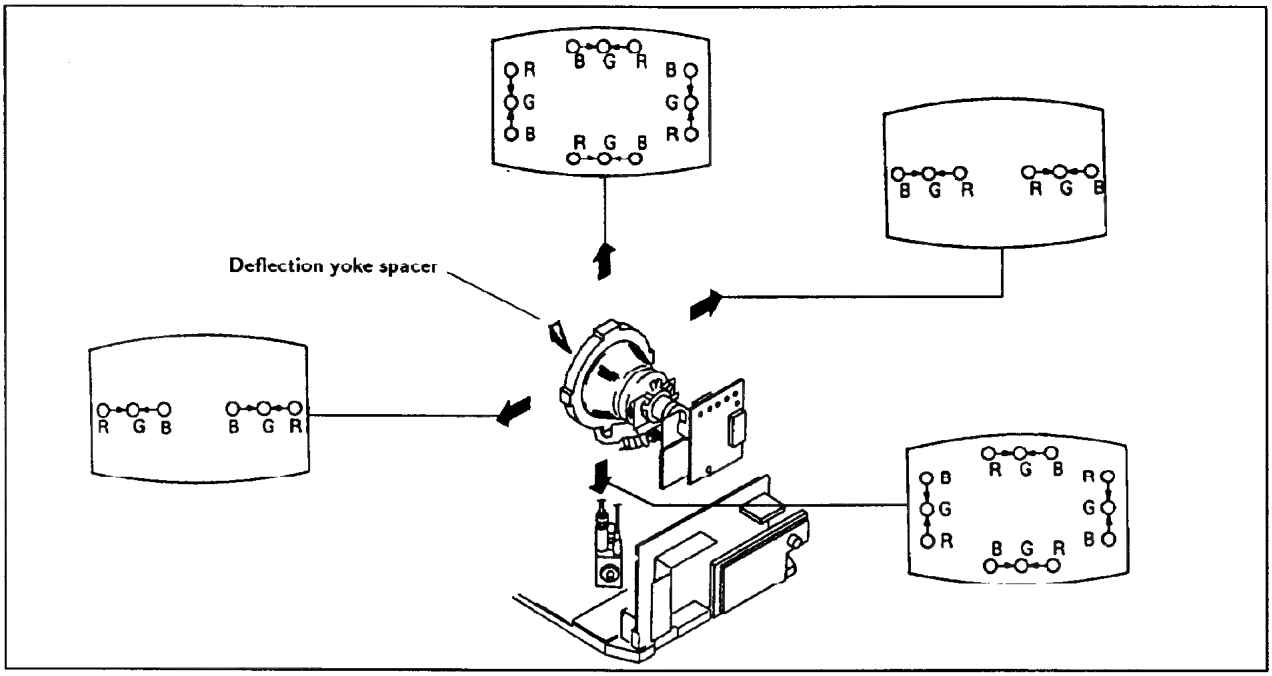
VMC correction (B)

(2) Dynamic Convergence Adjustment

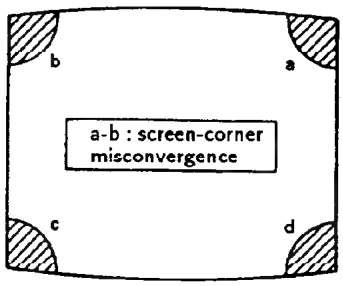
Preparations :

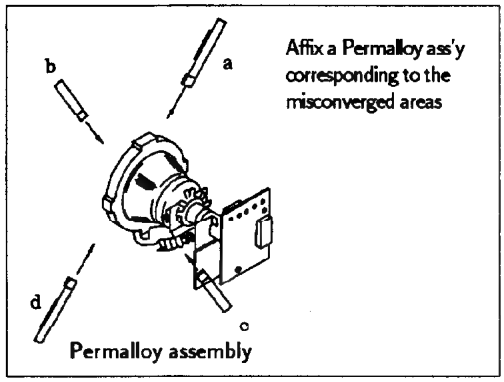
● Before starting perform Horizontal and Vertical static convergence Adjustmet.

1. Remove deflection yoke spacers.
2. Move the deflection yoke for best convergence as shown below.
3. Install the deflection yoke spacers.



(3) Screen -corner Convergence





3-3. FOCUS

Adjust FOCUS control for best picture.

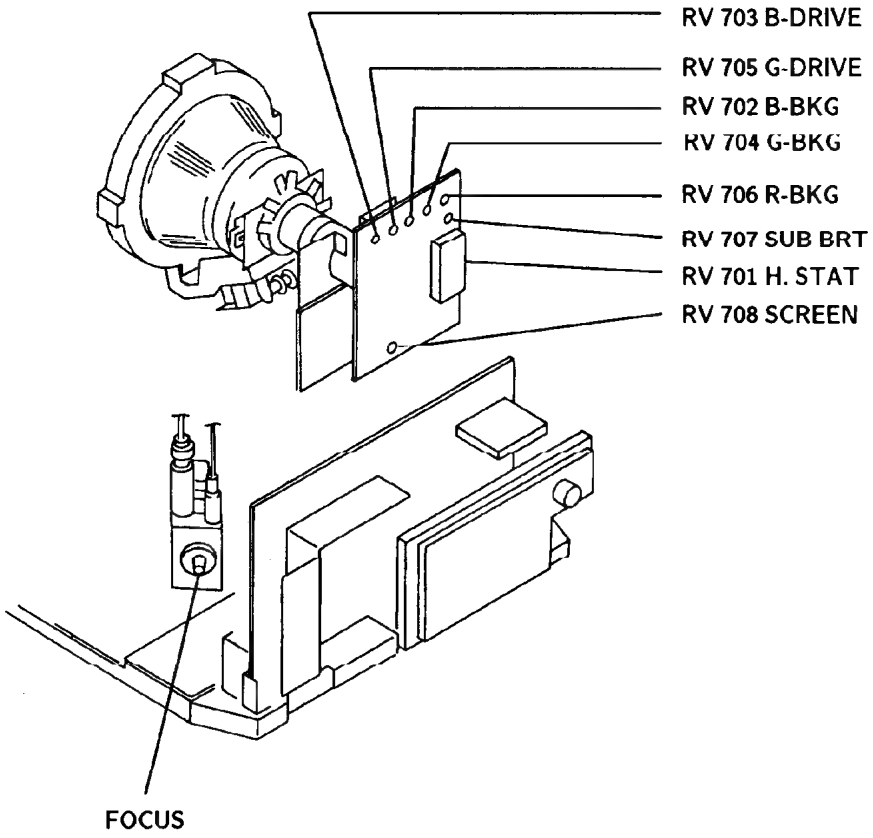
3-4. SCREEN(G 2) and WHITE BALANCE

[SCREEN(G2)]

1. Input dots patteren.
2. Set the PIC control at minimum and set the BRT control at maximum.
3. Confirm the BKG voltage is less than 180 Vdc when turning RV 706 (R.BKG), RV 704 (G.BKG) and RV 702 (B.BKG).
4. Note the color when becomes visible first when turning RV 708 (SCRN).

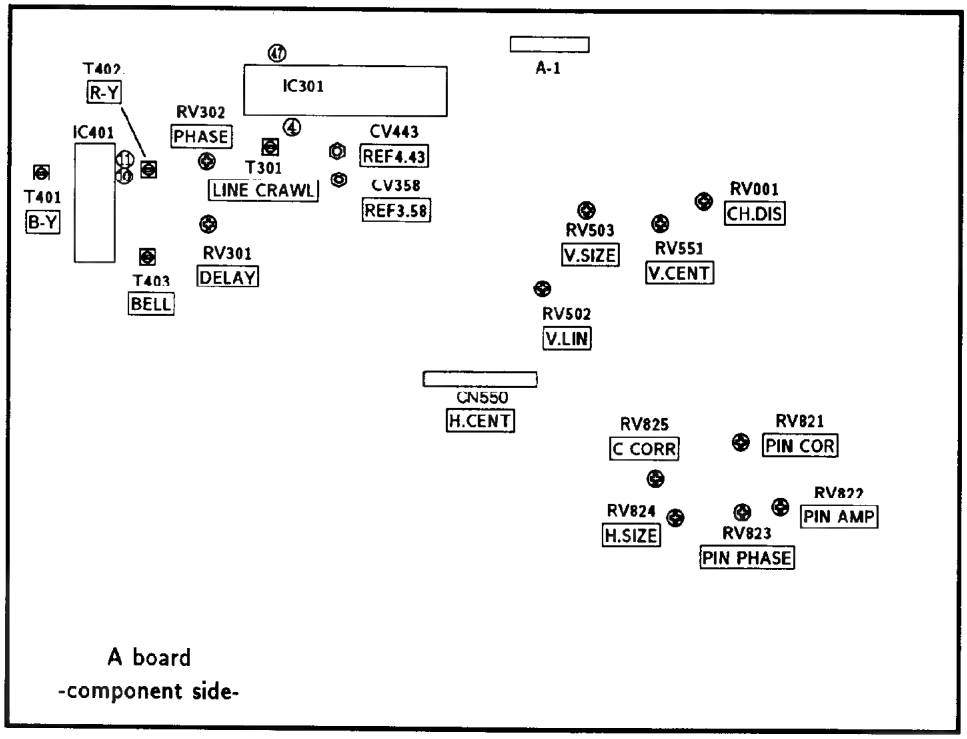
[WHITE BALANCE (Cut off)]

1. Input collor bar signl.
2. Set the PIC control to minimum and set the BRT control at normal.
3. Turn RV 703 (B.DRIVE) and RV 705 (G.DRIVE) fully clockwise.
4. Set RV 706 (R.BKG), RV 704 (G.BKG) and RV 702 (B.BKG) to minimum.
5. Turn RV 707 (SUB BRT) slowly to obtain a faintly visible blue stripe.
6. Switch over all white signal.
7. Adjust BKG controls for best white balance.
8. Set the PICTURE control to maximum. Observe the screen and adjust the DRIVE controls for best white balance.
9. Repeat steps 7 and 8.



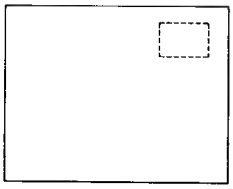
SECTION 4
CIRCUIT ADJUSTMENTS

4-1. A BOARD ADJUSTMENTS



Channel display POSITION ADJUSTMENT (RV001)

1. Set PIC control to maximum.
2. Adjust RV001 so that the channel display should be positioned at up-right on the screen.



A • P • C ADJUSTMENT (CV443) (PAL)

1. Input the PAL color-bar signal.
2. Set the PIC, COL, and BRT controls to normal.
3. Short circuit between pin ④ and pin ㊼ of IC301 with jumper.
4. Adjust CV443 for suitable color intensity.
5. Remove a jumper.

REF OSC 3.58 ADJUSTMENT (CV358) (NTSC 3.58)

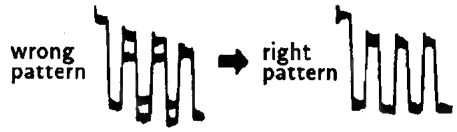
1. Short circuit between pin ④ and pin ㊼ of IC301 with a jumper.
2. Set the PIC, COL and BRT controls to normal.
3. Input NTSC 3.58 color-bar signal.
4. Adjust CV358 for suitable color intensity.
5. Remove the jumper.

ANTI PAL, LINE CRAWLING ADJUSTMENT (RV301,RV302,T301)

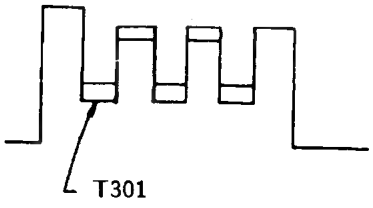
• ANTI PAL ADJUSTMENT

1. Input PAL color-bar signal.
2. Set the PIC, COL and BRT controls to normal.
3. Connect the oscilloscope to pin ③ of A-1 connector.
4. Adjust RV301 (DELAY) and RV302 (PHASE) to obtain the waveform as shown below.

• LINE CRAWLING ADJUSTMENT

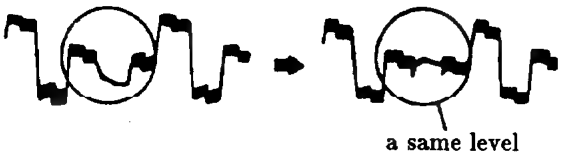


1. Input the PAL color-bar signal.
2. Set the PIC, COL and BRT controls to normal.
3. Connect the oscilloscope to pin ③ of A-1 connector.
4. Adjust T301 for minimum line crawling.



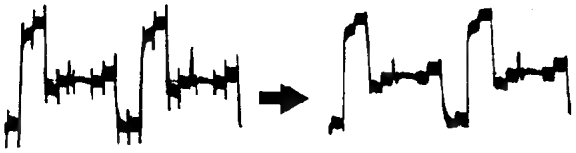
DISCRI ADJUSTMENT (T401,T402)

1. Input the SECAM color-bar signal.
2. Connect the dual-trace oscilloscope to the pin ⑪ (B-Y) and pin ⑩ (R-Y) of IC401.
3. Adjust T402 (R-Y) and T401 (B-Y) as shown the following figure.

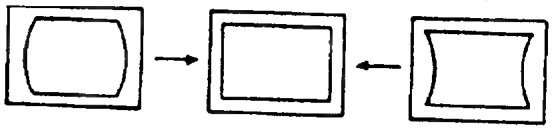


BELL FILTER ADJUSTMENT (T403)

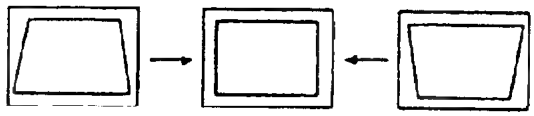
1. Input the SECAM color-bar signal.
2. Connect the oscilloscope to pin ⑩ (R-Y) of IC 401.
3. Adjust T403 as shown the following figure.



RV822 PIN ANP (PINCUSHION AMPLIFIER)

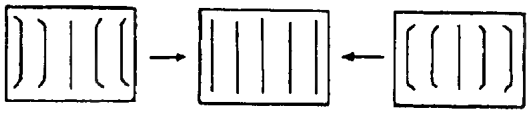


RV823 PIN PHASE (PINCUSHION PHASE)

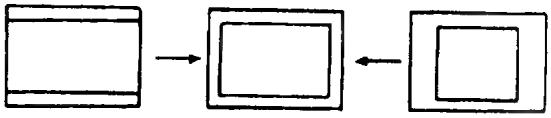


RV821 PIN COR (PINCUSHION CORRECT)

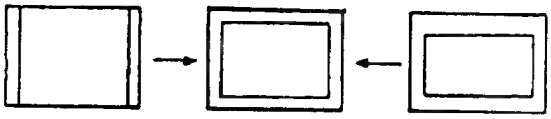
RV825 C.CORR(CORNER CORRECT)



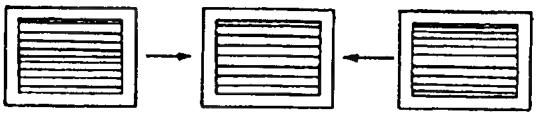
RV824 H.SIZE (HORIZONTAL SIZE)



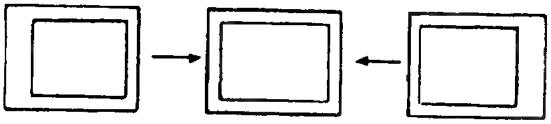
RV503 V.SIZE (VERTICAL SIZE)



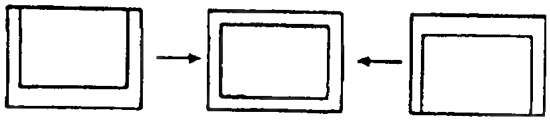
RV502 V.LIN (VERTICAL LINEARITY)



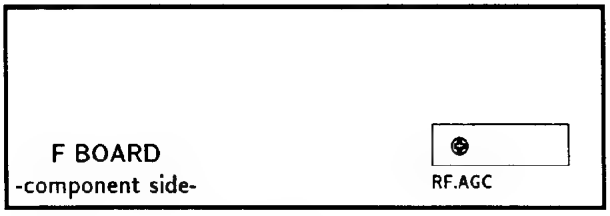
CN550 H.CENT (HORIZONTAL CENTER)



RV551 V.CENT (VERTICAL CENTER)



4-2. F BOARD ADJUSTMENT

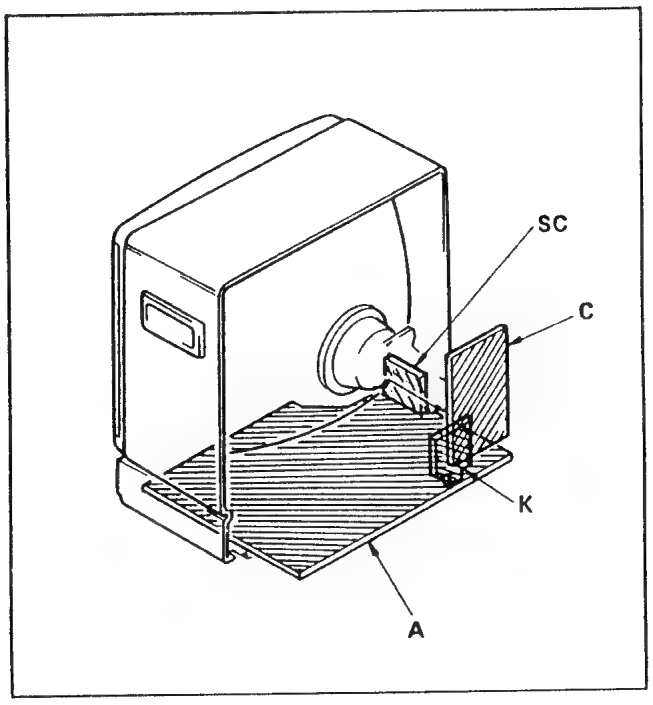


RF AGC ADJUSTMENT (IF1)

1. Receive a strong off-air signals.
2. Adjust RF AGC VR control so that snow noise and cross-modulation just disappear from the picture.

SECTION 5
DIAGRAMS

5-1. CIRCUIT BOARDS LOCATION



Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

  Pitch: 5 mm
  Rating electrical power ¼ W
- All resistors are in ohms.
-  : nonflammable resistor.
- : fusible resistor.
- △ : internal component.
- ▭ : panel designation, and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10 MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
  no mark : with PAL color-bar signal received.
  ( ) : with SECAM color-bar signal received.
- Voltage variations may be noted due to normal production tolerances.
- ▬▬ : B + bus.
- ⋯⋯ : signal path.

Reference Information

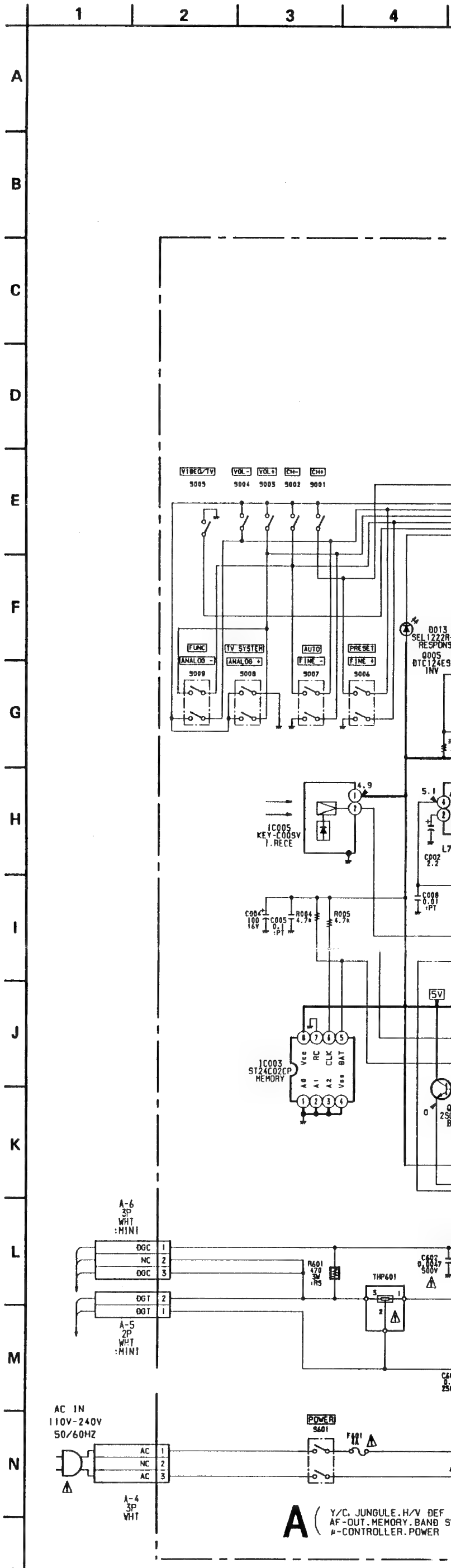
RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

A BOARD WAVEFORM

① 2 Vp-p (H)	② 0.4Vp-p (H)	③ 0.8Vp-p (H)
④ 1.1Vp-p (4.43MHZ)	⑤ 0.2Vp-p (3.58MHZ)	⑥ 3.9 Vp-p (H)
⑦ 3.9 Vp-p (H)	⑧ 3.6Vp-p (H)	⑨ 3 Vp-p (V)
⑩ 1.8Vp-p (H)	⑪ 2.2Vp-p (V)	⑫ 2 Vp-p (V)
⑬ 4.1 Vp-p (H)	⑭ 50 Vp-p (V)	⑮ 1.2Vp-p (V)
⑯ 1.4Vp-p (H)	⑰ 12.4Vp-p (H)	⑱ 840Vp-p (H)
⑲ 10 Vp-p (V)	⑳ 820Vp-p (H)	

5-2. SCHEMATIC DIAGRAM (1)



2 3 4 5 6 7 8 9 10 11 12 13

TO K BOARD

TU151 BT-E8201

A-7 2P RED :S-MICRO

A-22 5P WHT :S-MICRO

VIDEO IN

12V

VIDEO/TV S005 | VOL- S004 | VOL+ S003 | CH- S002 | CH+ S001

FUNC ANALOG - S009 | TV SYSTEM ANALOG + S008 | AUTO FINE - S007 | PRESET FINE + S006

IC002 PCA84C640P/016 CONTROLLER

D013 SEL1222R-CO RESPONSE

Q005 DTC124ES INV

D020 1SS119 STOPPER

Q151 DTA114ES BAND-VL

Q152 RD6.8ESB3 VL-DRIVE

Q153 DTA114ES BAND-VH

D153 RD6.8ESB3 VH-DRIVE

Q154 DTA114ES BAND-U

D154 RD6.8ESB3 U-DRIVE

D155 1SS119 STOPPER

D151 RD5.1ESB2 AGC

AGC TP15

IF R154 4.7k

L151 10mH :FLR50

C020 100 16V

C150 1

C151 0.047 :PT

C152 1

C153 1

R155 470

C159 10

IF201 IF0-380A

RF AGC | IF IN | VCC | AFT UP | AFT BN | AFT OUT | VOL | AF OUT | AF IN | DE-EMPH | SYS-1 | DET OUT | SYS-2

D201 RD2.0ESB1 OC-STOP

R205 33k

R204 12k

R212 10k

C203 1000 16V

C210 0.0047 B

C207 2.2

R210 18k

R211 10k 1/4W

C202 0.47 :MPS

D200 RD6.2ESB2 PROTECT

AUDIO

IC202 LA7016 AUDIO-SW

C214 1

R214 10k

IC251 TDA2007 AF-OUT

C259 470 16V

R254 2.2

R257 10k

C253 22

C251 1000 25V

R253 1.2k

C256 0.1 :PT

C255 0.01 :PT

C257 0.0022 :PT

C254 220 16V

R255 22

VIDEO

IC203 LA7016 VIDEO-SW

R251 100k

C213 47 16V

R213 2.2k

Q201 2SC2785 VIDEO-BUFF

Q202 2SC2785 DISP-BUFF

C083 47p

R047 22k

R081 1k

R100 270

R087 1k

R086 1k 1/4W

R085 1k 1/4W

R084 1k 1/4W

R083 1k 1/4W

R082 1k

R010 2.2k 1/4W

R080 4.7k

C082 0.0047 B

R027 100k

R028 22k

RV001 4.7k 1/10W

R008 6.8k

R101 2.2k

C007 33

R013 22k

X001 10MHz

C001 10

C002 2.2

C009 0.01 :PT

IC001 L78L05ABA-MA 5V-REG

IC005 KEY-C005V 1.RECE

R091 1k

C017 10

R030 3.3k

R011 100k 1/4W

D011 RD3.3ESB1 REF

Q003 2SA1175 SYNC-SW

D010 1SS119 RECT

R016 2.2k

R018 6.8k

C026 0.1 :PT

R017 100k

C028 220 6.3V

C024 0.22 :MPS

Q004 DTC114ES INV

9V

R033 47k

C023 10

R088 100k

R039 220k 1/4W

14V

C004 100 16V

C005 0.1 :PT

R004 4.7k

R005 4.7k

R007 1k

R006 1k

R032 10k

C019 10

R029 1k

R031 150k

C018 10

R035 15k

R034 5.0 22k

R038 10k

R037 220k 1/4W

Q007 2SC2785 BUFF

D008 1SS119 HUE-CONT

C021 1

R090 15k

R034 3.3k

Q001 2SK669 VC-AMP

R026 10k 2W :RS

R025 10k

R023 22k 1/4W

R022 22k

R021 22k

C011 10

5V

IC003 ST24C02CP MEMORY

R102 1k

R103 1k

D021 1SS119 STOPPER

Q006 2SC2785 BUFF

R044 150k

C006 2.2

NC

CP002 220Pp6

R020 1.8k

C015 0.068 :PT

C014 0.068 :PT

C012 0.1 :PT

C016 10

R024 330k

Q002 2SC2785 VC-FILTER

IC004 HZT33-02 33V-REG

R613 1/4W :FPRD

D864 GP08D STOPPER

R864 4.7 1/4W :FPRD

A-6 3P WHT :MINI

A-5 2P WHT :MINI

A-4 3P WHT

DGC 1 | NC 2 | DGC 3

DGT 2 | DGT 1

AC 1 | NC 2 | AC 3

R601 470 3W :RS

THP601

C602 0.0047 500V

D601 KBU4J-6088 AC-RECT

C605 0.0047 500V

C604 0.0047 500V

C619 0.0047 500V

R405 1.8 1W :RD

R402 1.8 1W :RD

C603 0.1 250V

T601

POWER S601

F601 4A

C601 0.1 250V :MPS

T602 SRT

C610 0.001 500V B

D602 RGP10G 14V-RECT

C612 470 25V

R607 0.47 1/4W :FPRD

C616 470p 2kV B

D604 RGP15J 115V-DUMPER

L604 1.1mH

C667 470p 2k

D605 RGP10G CLAMP-1

C607 0.082 100V :PT

R603 8.2 1/2W :FPRD

C617 0.27 :MPS

D606 RGP10G CLAMP-2

R615 0.68 1/2W :FPRD

C614 0.68 200V :PP

R609 33 3W :RS

D607 GP08D CLAMP-3

D608 R2M-V1 DVP

C615 33 160V :HR

C608 470p 2kV B

C616 56p 2k B

IC601 STR5011SB PWM-REG

C613 330p

R604 470k 1/2W

C606 330 400V

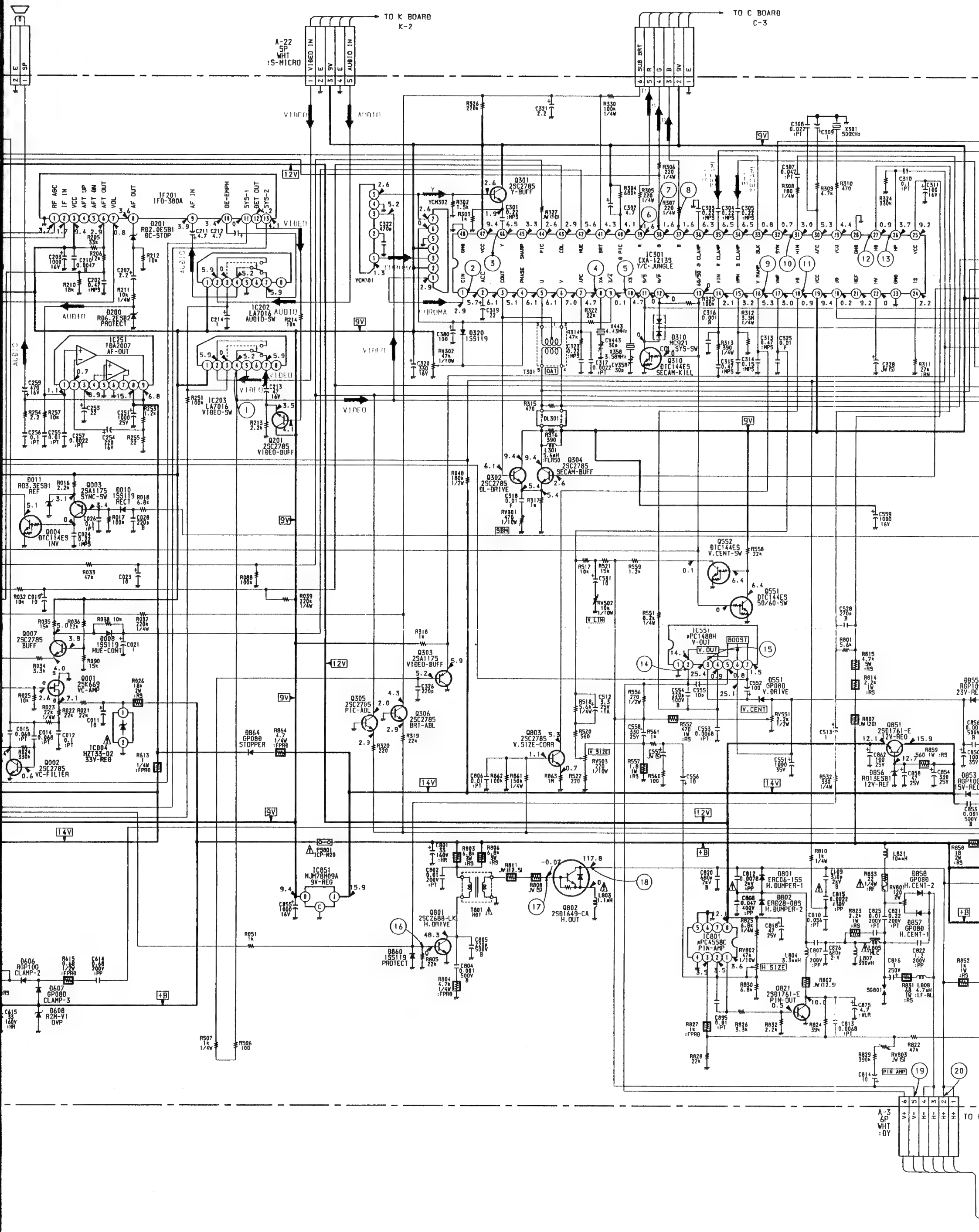
+B

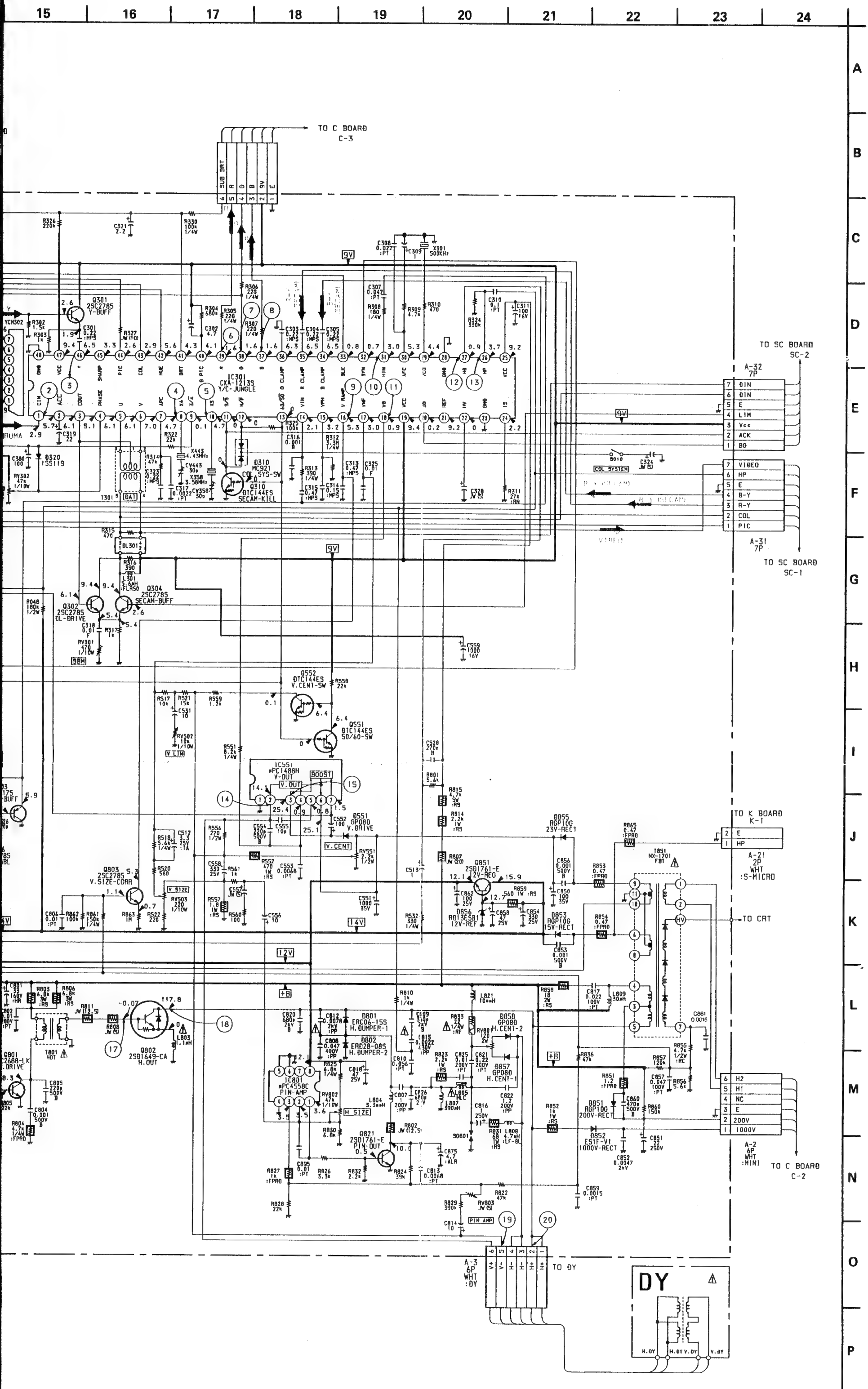
R507 1k 1/4W

R506 100

R051 1k

A (Y/C, JUNGULE.H/V DEF
AF-OUT.MEMORY.BAND SW
μ-CONTROLLER.POWER)


TO K BOARD
K-2
A-22
5P
WHT
:S-MICRO
VIDEO IN
AUDIO IN
TO C BOARD
C-3
SUB BRT
VIDEO
AUDIO
12V
9V
14V
IF201
IF0-380A
D201
RD2.0ESB1
OC-STOP
D200
RD6.2ESB2
PROTECT
IC202
LA7016
AUDIO-SW
IC251
T0A2007
AF-OUT
IC203
LA7016
VIDEO-SW
Q201
2SC2785
VIDEO-BUFF
YCM302
YCM301
Q301
2SC2785
Y-BUFF
IC301
CXA-1213S
Y/C-JUNGLE
X301
500KHz
X443
4.43MHz
X358
3.58MHz
T301
OAT
D310
MC921
COL SYS-SW
Q310
DTC144ES
SECAM-KILL
DL301
L301
5.6mH
FLA50
Q304
2SC2785
SECAM-BUFF
Q302
2SC2785
DL-DRIVE
5BM
D320
1SS119
Q303
2SA1175
VIDEO-BUFF
Q305
2SC2785
PIC-ABL
Q306
2SC2785
BRT-ABL
Q803
2SC2785
V.SIZE-CORR
V.SIZE
Q552
DTC144ES
V.CENT-SW
Q551
DTC144ES
50/60-SW
IC551
μPC1488H
V-OUT
BOOST
V.OUT
D551
GP08Q
V.DRIVE
V.CENT
RV551
2.2k
1/2W
V.LIN
RV502
10k
1/10W
D011
RD3.3ESB1
REF
Q003
2SA1175
SYNC-SW
D010
1SS119
RECT
Q004
DTC114ES
INV
Q007
2SC2785
BUFF
D008
1SS119
HUE-CONT
Q001
2SK669
VC-AMP
Q002
2SC2785
VC-FILTER
IC004
HZ13S-02
33V-REG
D864
GP08Q
STOPPER
D606
RGP10G
CLAMP-2
D607
GP08Q
CLAMP-3
D608
R2M-V1
OVP
PS801
ICP-N20
IC851
NJM78M09A
9V-REG
Q801
2SC2688-LK
H.DRIVE
T801
HOT
Q802
2SD1649-CA
H.OUT
D860
1SS119
PROTECT
D801
ERC06-15S
H.DUMPER-1
D802
ERD28-08S
H.DUMPER-2
IC801
μPC4558C
PIN-AMP
PIN AMP
Q821
2SD1761-E
PIN-OUT
Q851
2SD1761-E
12V-REG
D856
RD13ESB1
12V-REF
D858
GP08Q
H.CENT-2
D857
GP08Q
H.CENT-1
H SIZE
A-3
6P
WHT
:DY
V+
V-
H-
H-
H+
H+
TO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16
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21
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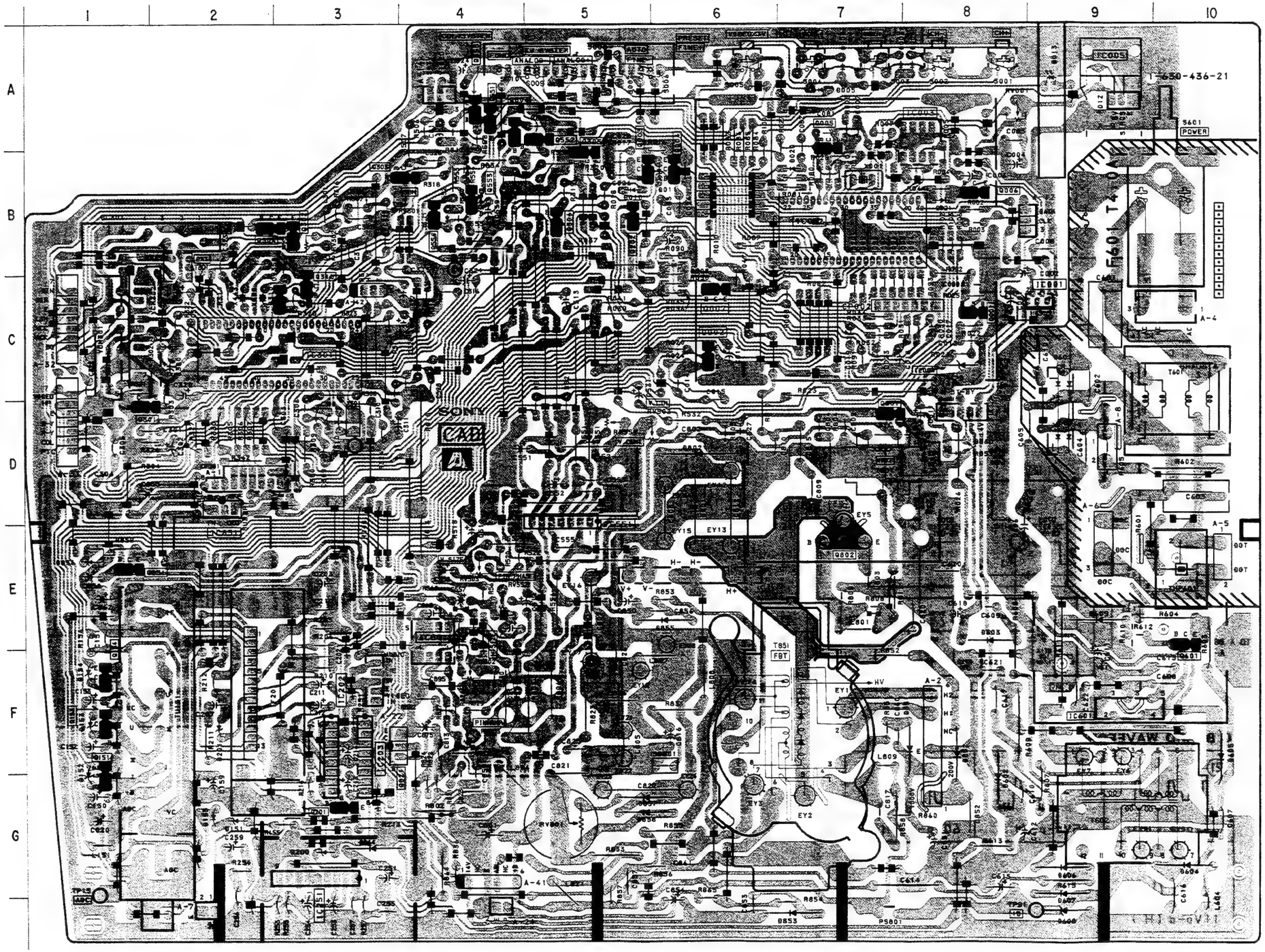
23
24
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
TO C BOARD
C-3
SUB BRT
R
G
B
9V
E
9V
TO SC BOARD
SC-2
A-32
7P
7 BIN
6 BIN
5 E
4 LIM
3 Vcc
2 ACK
1 BG
7 VIDEO
6 HP
5 E
4 B-Y
3 R-Y
2 COL
1 PIC
A-31
7P
TO SC BOARD
SC-1
TO K BOARD
K-1
2 E
1 HP
A-21
2P
WHT
:S-MICRO
TO CRT
6 H2
5 H1
4 NC
3 E
2 200V
1 1000V
A-2
6P
WHT
:MINI
TO C BOARD
C-2
A-3
6P
WHT
:DY
TO DY
DY
H.DY
H.DY V.DY
V.DY
Q301
2SC2785
Y-BUFF
IC301
CXA-1213S
Y/C-JUNGLE
Q310
DTC144ES
SECAM-KILL
Q302
2SC2785
DL-DRIVE
Q304
2SC2785
SECAM-BUFF
Q552
DTC144ES
V.CENT-SW
Q551
DTC144ES
50/60-SW
IC551
#PC1488H
V-OUT
Q551
GP080
V.DRIVE
Q803
2SC2785
V.SIZE-CORR
Q802
2SD1649-CA
H.OUT
IC801
#PC4558C
PIN-AMP
Q821
2SD1761-E
PIN-OUT
Q851
2SD1761-E
12V-REG
D856
RD13ESB1
12V-REF
D855
RGP10G
23V-RECT
D853
RGP10G
15V-RECT
D851
RGP10G
200V-RECT
D852
ES1F-V1
1000V-RECT
D858
GP08D
H.CENT-2
D857
GP08D
H.CENT-1
D801
ERC06-15S
H.DUMPER-1
D802
ERA28-08S
H.DUMPER-2
T801
HOT
T851
NX-1701
FBT
L801
2688-LK
.DRIVE
L802
FLR50
L803
1.1uH
L804
3.3mH
L805
HLC
L806
68
L807
390uH
L808
4.7mH
:LF-8L
L809
30mH
L821
10mH
X301
500KHz
X443
4.43MHz
X358
3.58MHz
V.LIN
V.SIZE
H.SIZE
BOOST
V.OUT
V.CENT
PIN AMP
5BM
COL SYSTEM
9010
VIDEO
R-Y (SECAM)
B-Y (SECAM)

5-3. PRINTED WIRING BOARD (1)

–CONDUCTOR SIDE–

[Y/C, JUNGLE, H/V DEF
AF-OUT, MEMORY, BAND SW
μ –CONTROLLER, POWER] A A



IC

IC001	C-9
IC002	B-7
IC003	A-8
IC004	C-8
IC005	A-9
IC202	F-3
IC203	F-3
IC251	G-3
IC301	C-3
IC551	D-5
IC601	F-9
IC801	E-4
IC851	D-2

TRANSISTOR

Q001	C-8
Q002	C-7
Q003	B-5
Q004	B-6
Q005	A-7
Q006	B-8
Q007	C-6
Q151	F-1
Q153	F-1
Q154	F-1
Q201	G-3
Q202	B-5
Q301	D-1
Q302	B-3
Q303	B-4
Q304	B-2
Q305	A-5
Q306	B-5
Q31Q	C-3
Q551	A-4
Q552	A-5
Q801	D-7
Q802	E-7
Q803	A-4
Q821	F-3
Q851	E-1

DIODE

D008	B-6
D010	B-5
D011	B-6
D013	A-9
D020	B-7
D021	B-8
D151	F-2
D152	F-1
D153	F-1
D154	F-1
D155	F-2
D200	G-3
D201	F-2
D310	C-3
D320	C-2
D551	D-5
D601	C-9
D602	G-8
D604	G-10
D605	F-10
D606	G-9
D607	G-9
D608	G-9
D801	D-6
D802	D-6
D851	F-8
D852	F-8
D853	G-7
D855	E-6
D856	E-1
D857	G-5
D858	G-5
D860	D-8
D864	G-3

VARIABLE RESISTOR

RV001	A-8
RV301	B-4
RV302	B-3
RV502	D-6
RV503	E-4
RV551	D-5
RV801	G-5
RV802	F-4

DELAY LINE

DL301	B-1

IF BLOCK

IF201	F-2

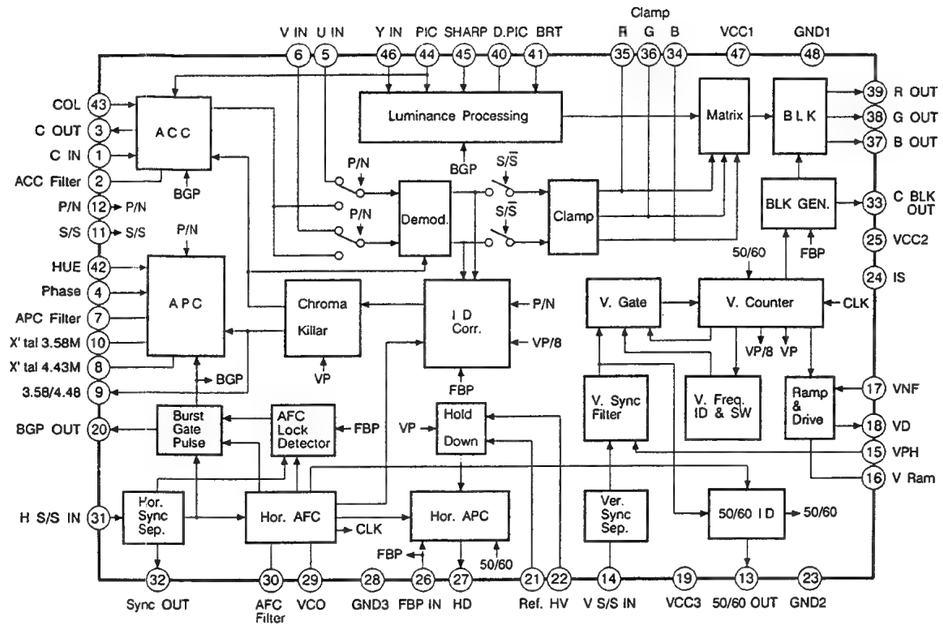
TUNER

TU151	F-2

CRYSTAL

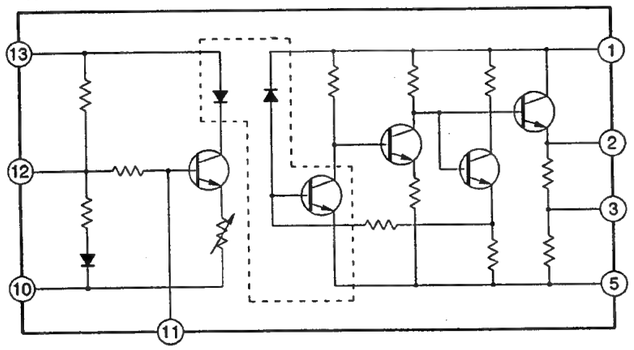
X001	B-7
X301	D-3
X358	C-2
X443	C-2

• A BOARD IC301 CXA1213S

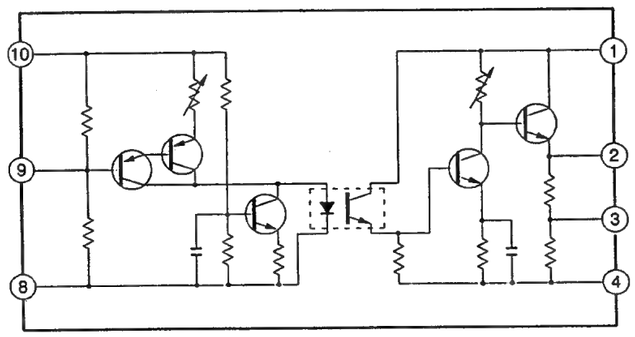


NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

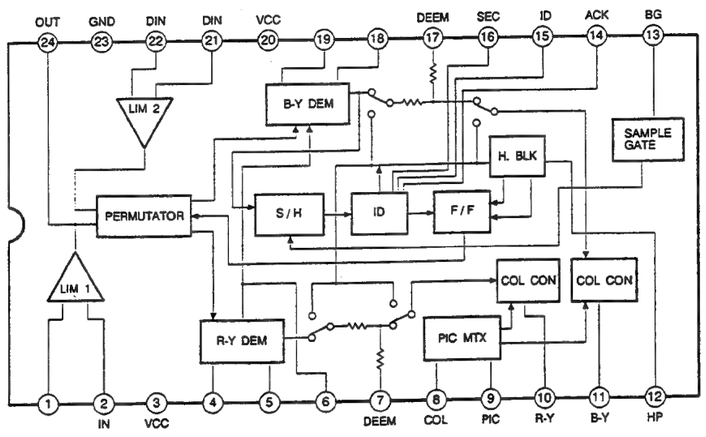
• K BOARD AVM-1 IVM-2

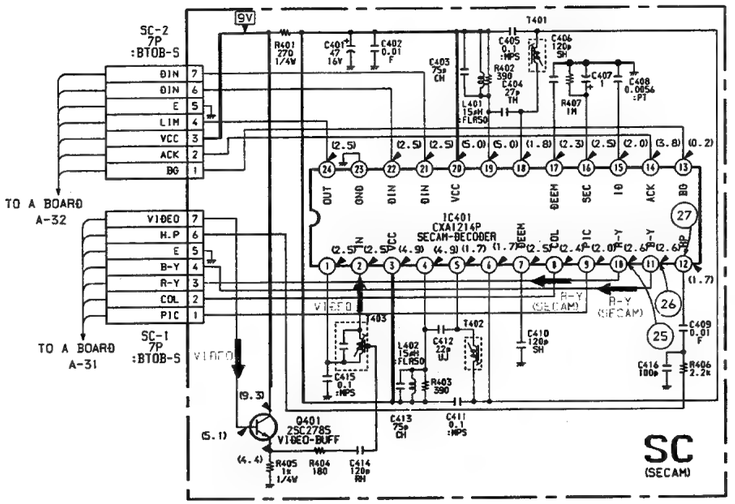


• K BOARD AVM-2 IVM-1



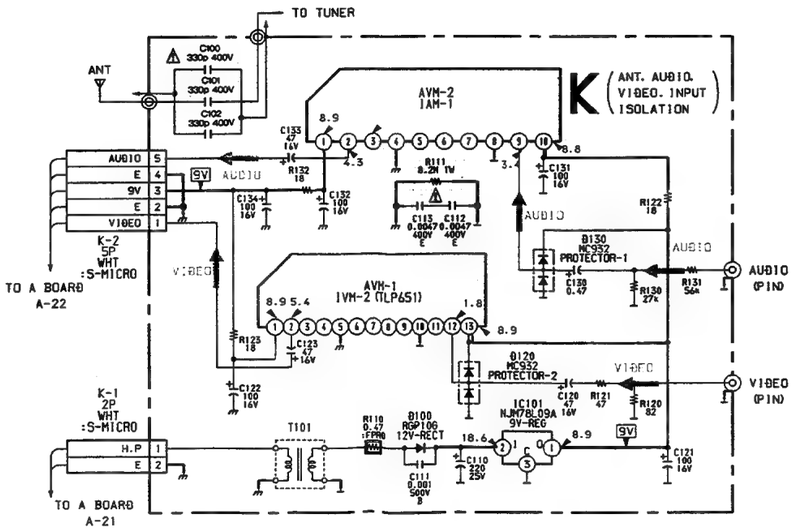
• SC BOARD IC401 CXA1214P

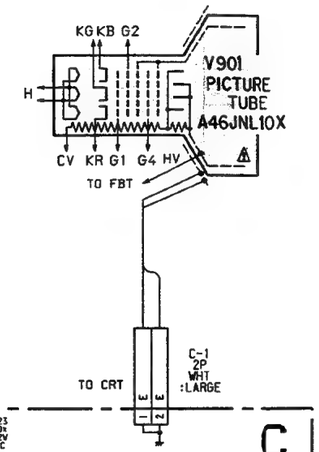


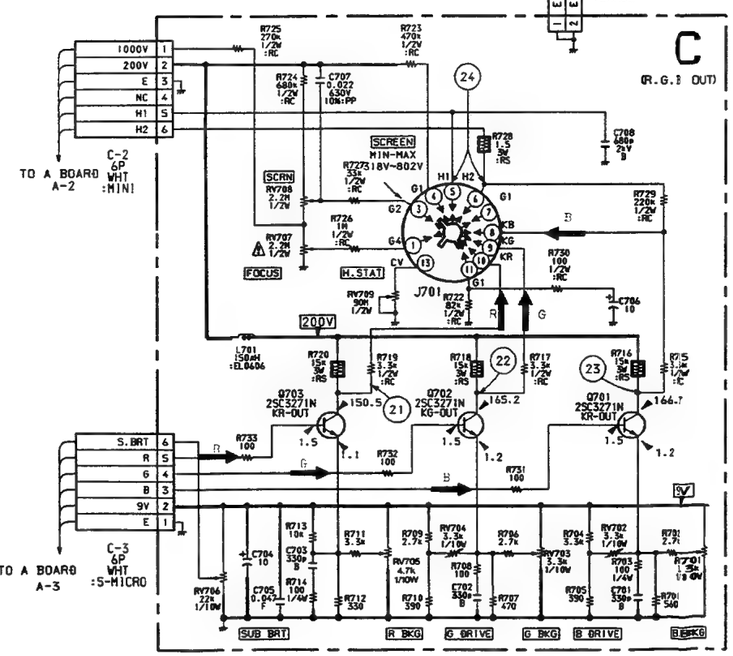


SC BOARD WAVEFORM

25 (SECAM) 0.24Vp-p(H)	26 (SECAM) 0.3Vp-p (H)	27 (SECAM) 4.3Vp-p (H)







C BOARD WAVEFORM

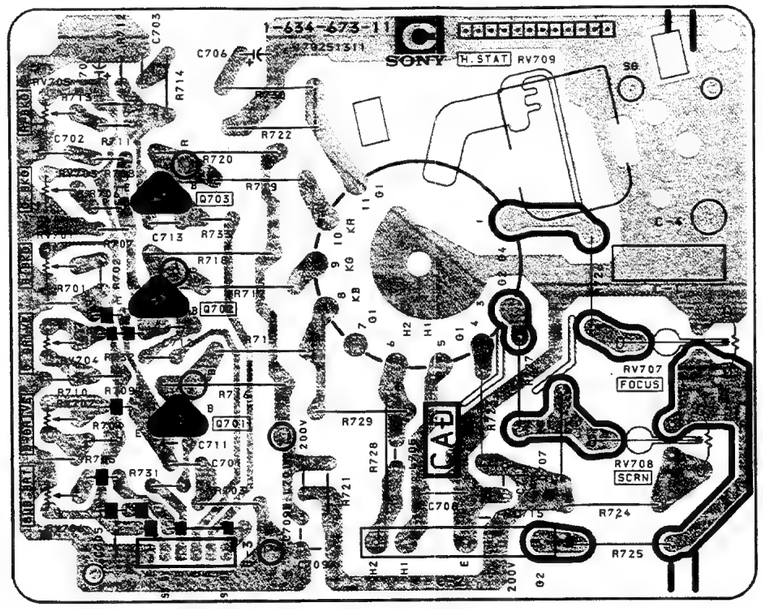
21 68Vp-p (H)	22 65Vp-p (H)	23 60Vp-p (H)
24 11Vp-p (H)		

PRINTED WIRING BOARD (2)

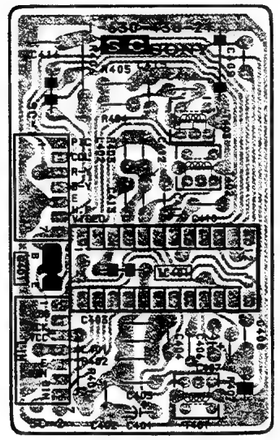
–CONDUCTOR SIDE–

C [R · G · B OUT] **SC** [SECAM] **K** [ANT, AUDIO / VIDEO INPUT]

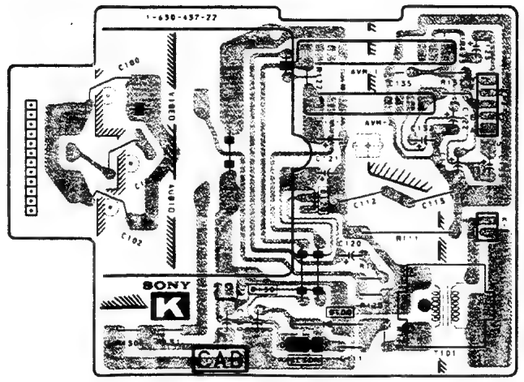
–C BOARD–



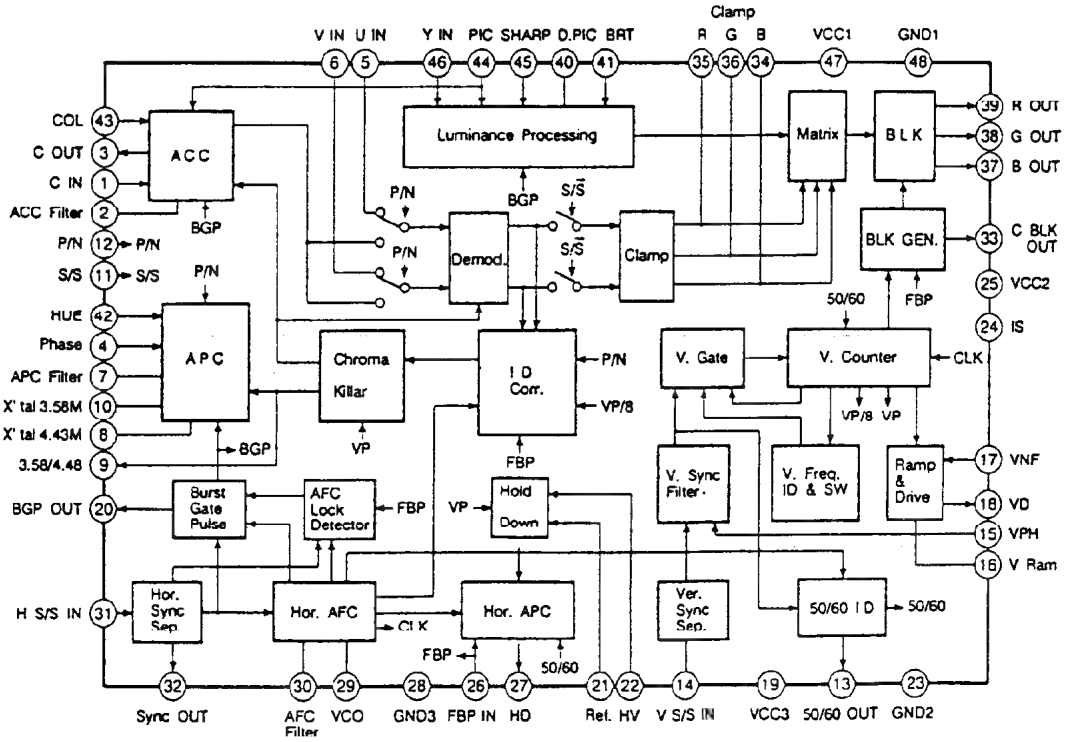
–SC BOARD–



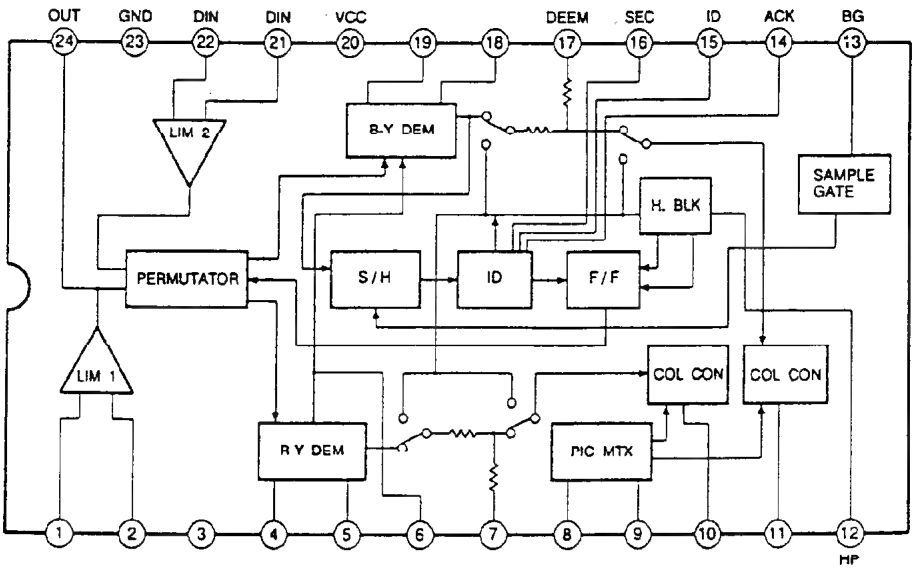
–K BOARD–



A BOARD IC301 CXA1213S



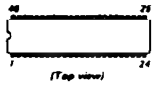
A BOARD IC401 CXA1214P



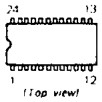
NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

5-5. SEMICONDUCTORS

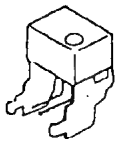
CXA1213S



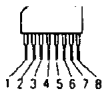
CXA1214P
TD6600-2



KEY-C00SV

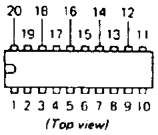


LA7016

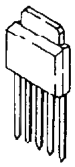


LM393P
RC4558P
ST24C02AB1
TEA2031A
TBA129

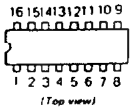
LM1036N



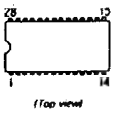
L78LR05D-MA



MC14052BCP
TDA8444



MC14066BCP
MC33079P



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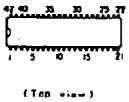
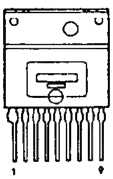
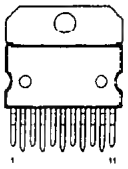


RC78L09A

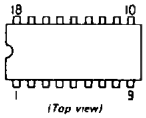
STR-S5741



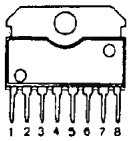
TDA2009A



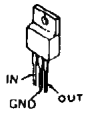
TDA2595-V9



μ PC1498H



μ PC7812H
μ PC7893HF

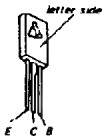


DTA114ES
DTA144ES
DTC114ES
DTC124ES
DTC143TS
DTC144ES
2SC3327-AB

DTC124EK
2SA812-T1-M5M6

2SA1175-HFE
2SA1309A-QTA
2SC2785-HFE
2SC3311A-QRSTA

2SA1220A-P
2SC2611
2SC2688-L



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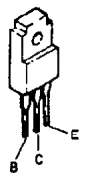
2SC2958-L
2SD774-3

2SA1306A-Y
2SC3298A-Y



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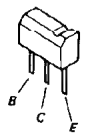

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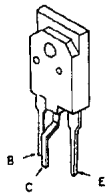

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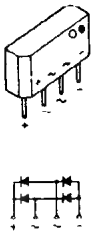
D4SB60L-F



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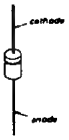
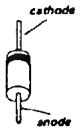
ERC06-15S
RU-1P
RU4ALF



ERD29-08J



EU2Z-V1
ES1F-N
GP08DPKG23
RGP10GPKG23
R2K-V1
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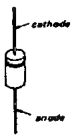
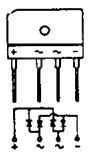


MC921

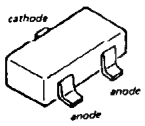
MC932

RBV-406H

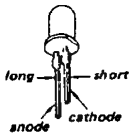


HZT33-02TE
RD10ES-B2
RD10ES-B3
RD11ES-B
RD13ES-B2
RD13ES-B3
RD30ES-B2
RD39ES-B
RD5.1ES-B2
RD5.6ES-B2
RD6.2ES-B2
RD6.8ES-B3
RD7.5ES-B1
RD7.5ES-B3
RD9.1ES-B2
RD9.1ES-B3
1SS119

1S2837



SEL1222R-C, D



SLR-932A

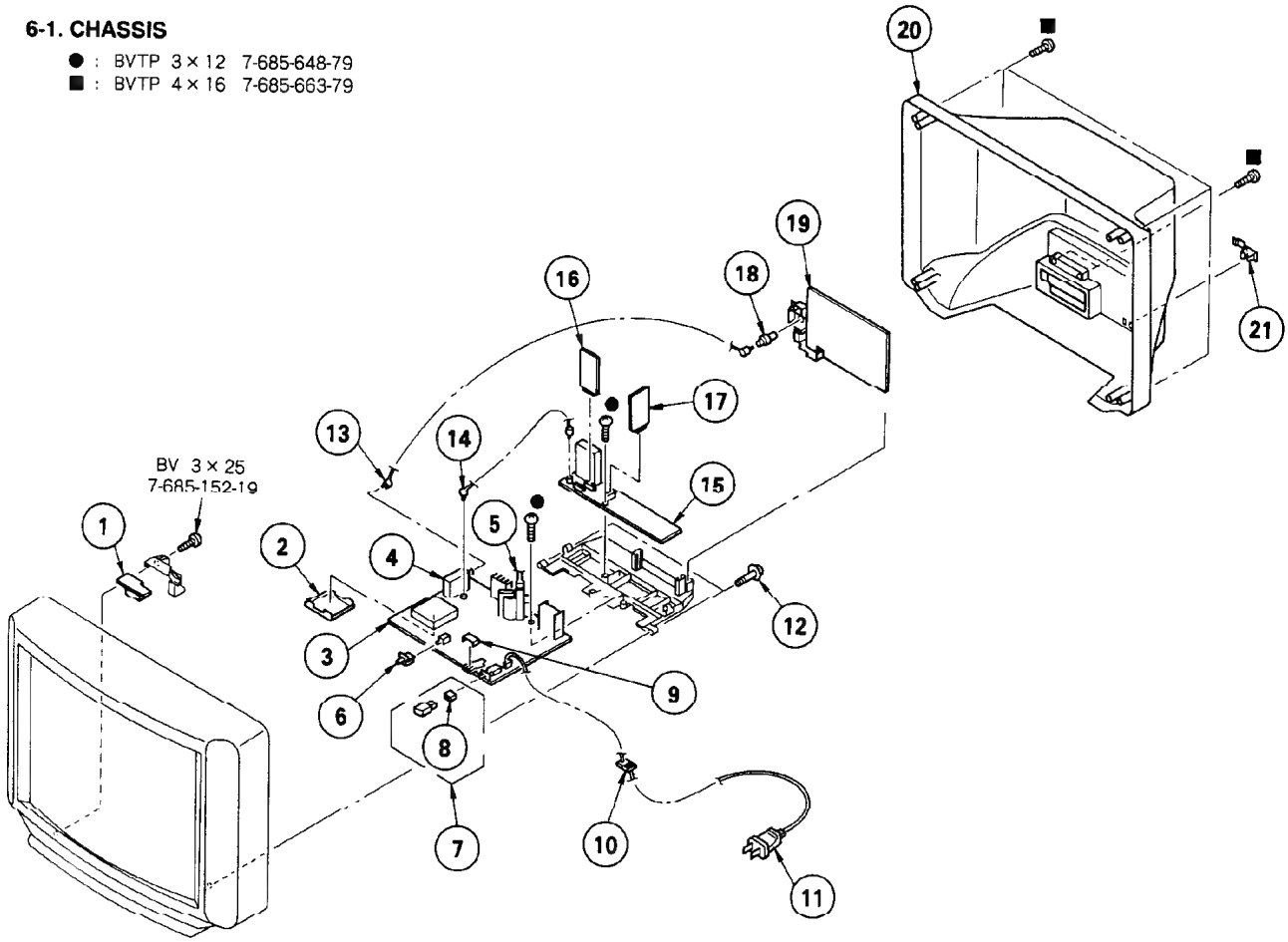
SECTION 6
EXPLODED VIEWS

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

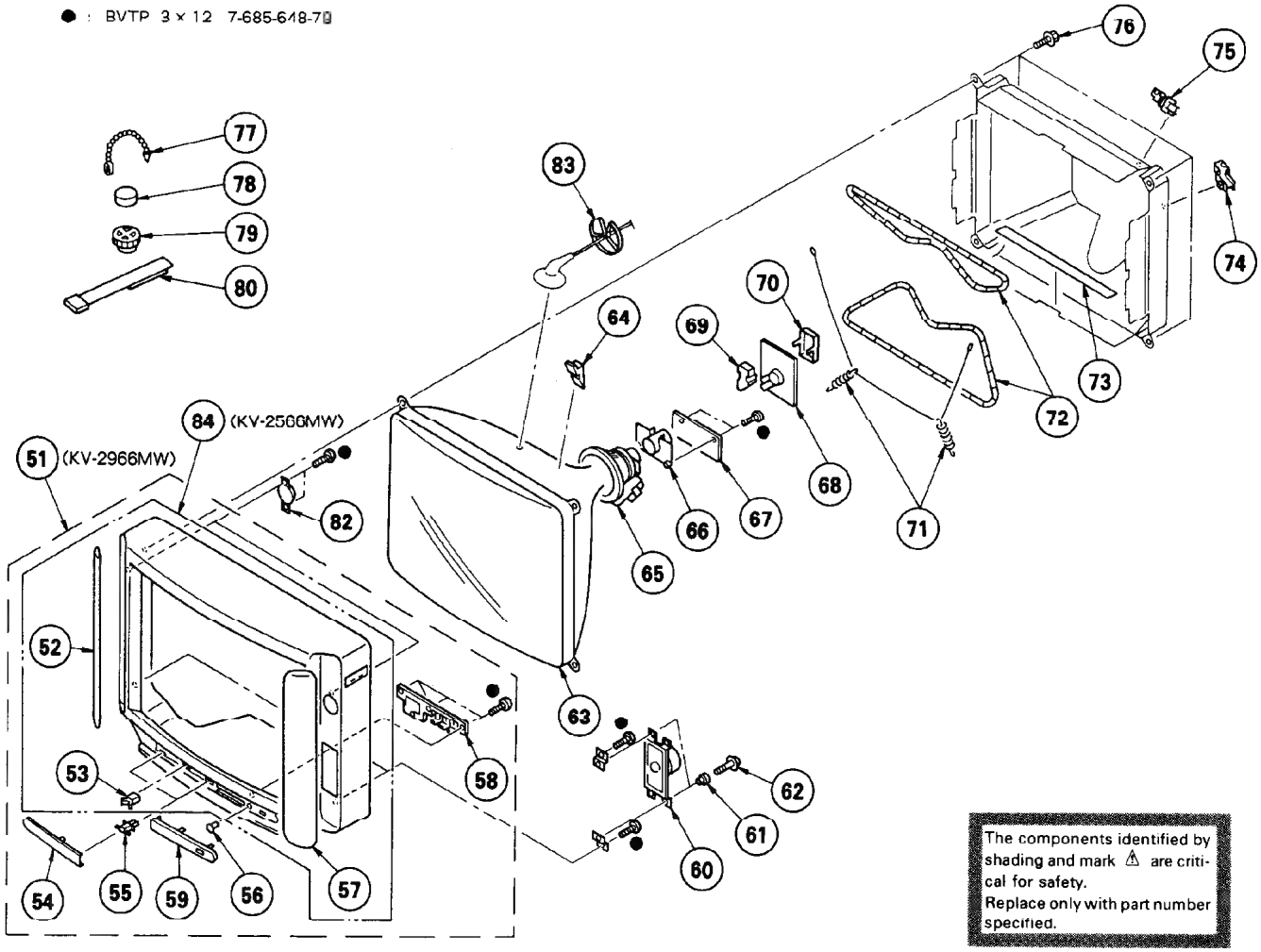
6-1. CHASSIS

● : BVTP 3 × 12 7-685-648-79
■ : BVTP 4 × 16 7-685-663-79



6-2. PICTURE TUBE

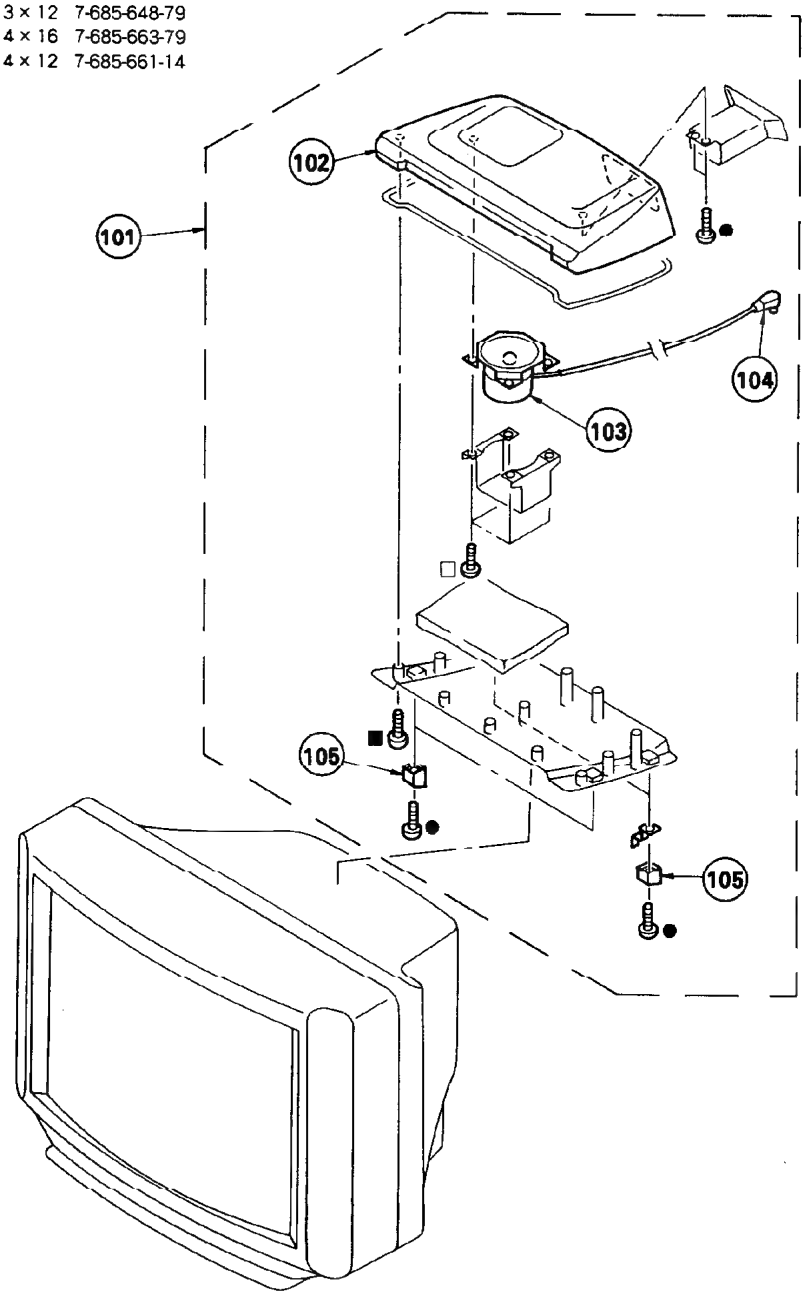
● : BVTP 3 × 12 7-685-648-70



The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

6-3. SPEAKER

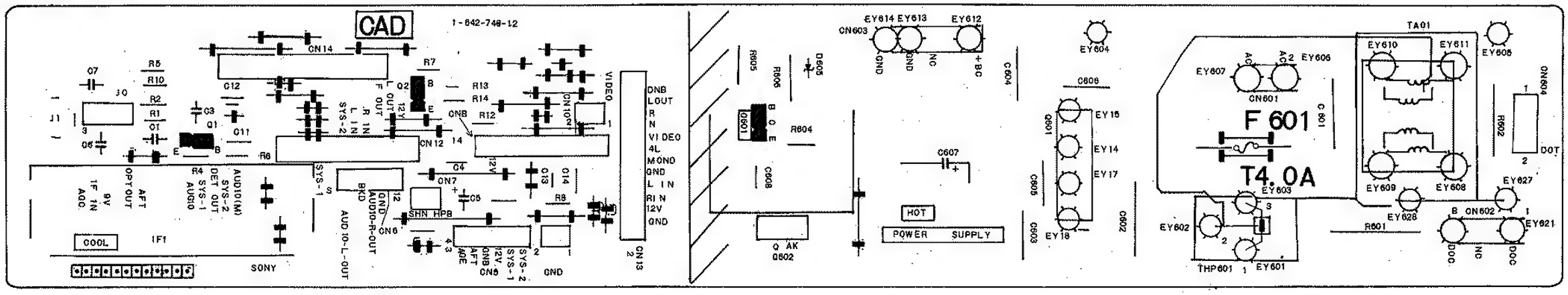
● : BVTP 3 × 12 7-685-648-79
■ : BVTP 4 × 16 7-685-663-79
□ : BVTP 4 × 12 7-685-661-14



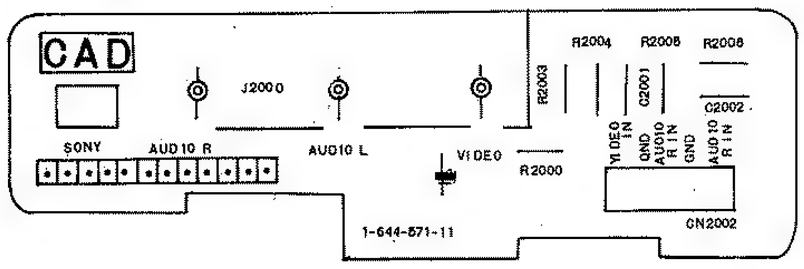
KV-2966MNT KV-2966MW KV-2966SNT KV-2966AS 索尼 KV－2966M1

F (POWER SUPPLY, IF BLOCK) H (AUDIO IN) AS (AUDIO SW) J1 (AUDIO SW) J2 (AUDIO BUFFER) K (AUDIO POWER AMP, VOL CONTROL, SURROUNO AMP, AUDIO SW, VIDEO SW,)

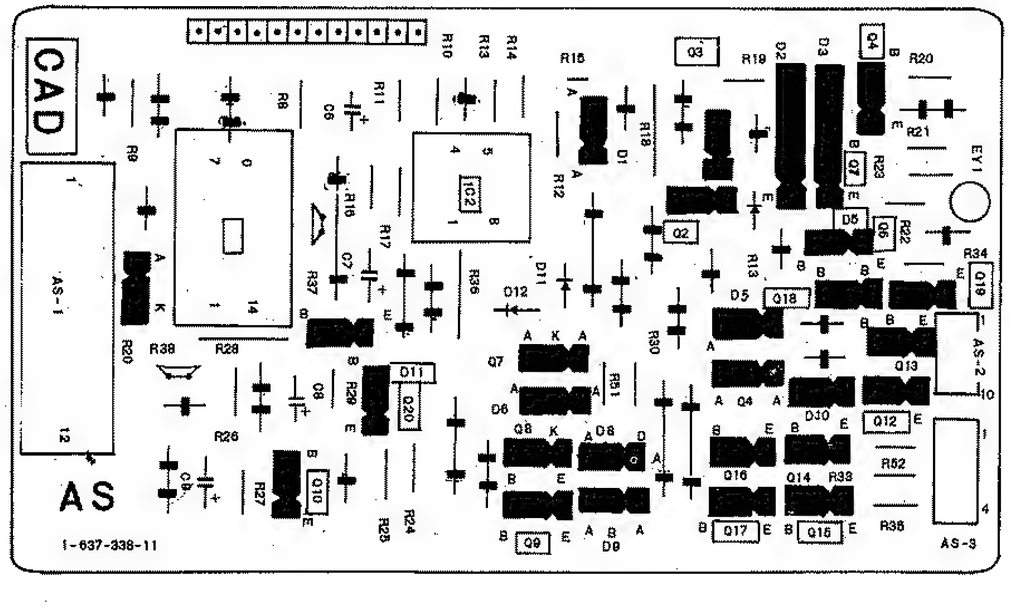
F Board



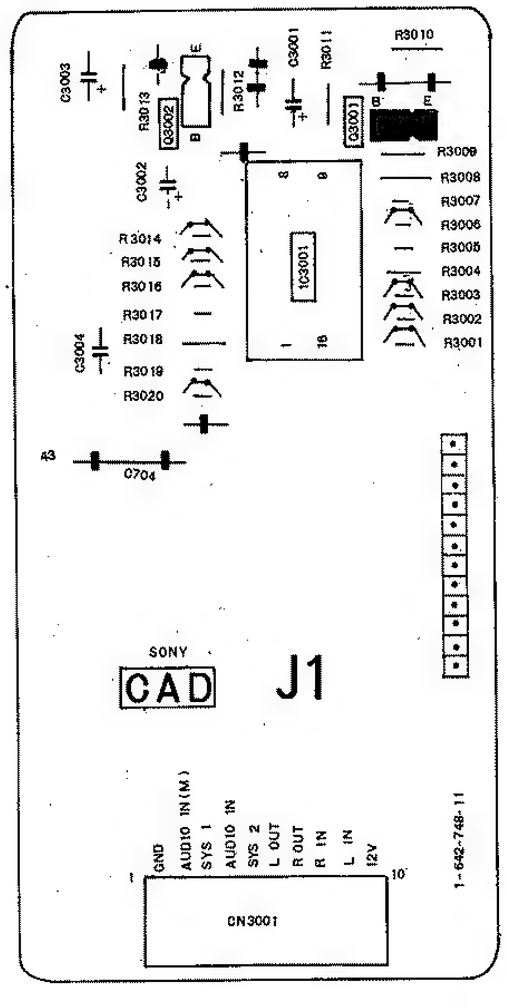
H Board



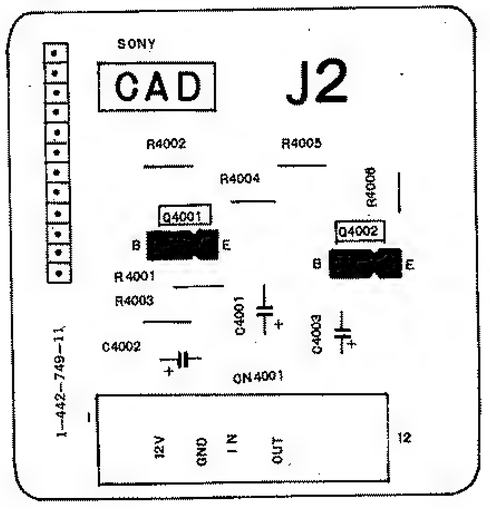
AS Board

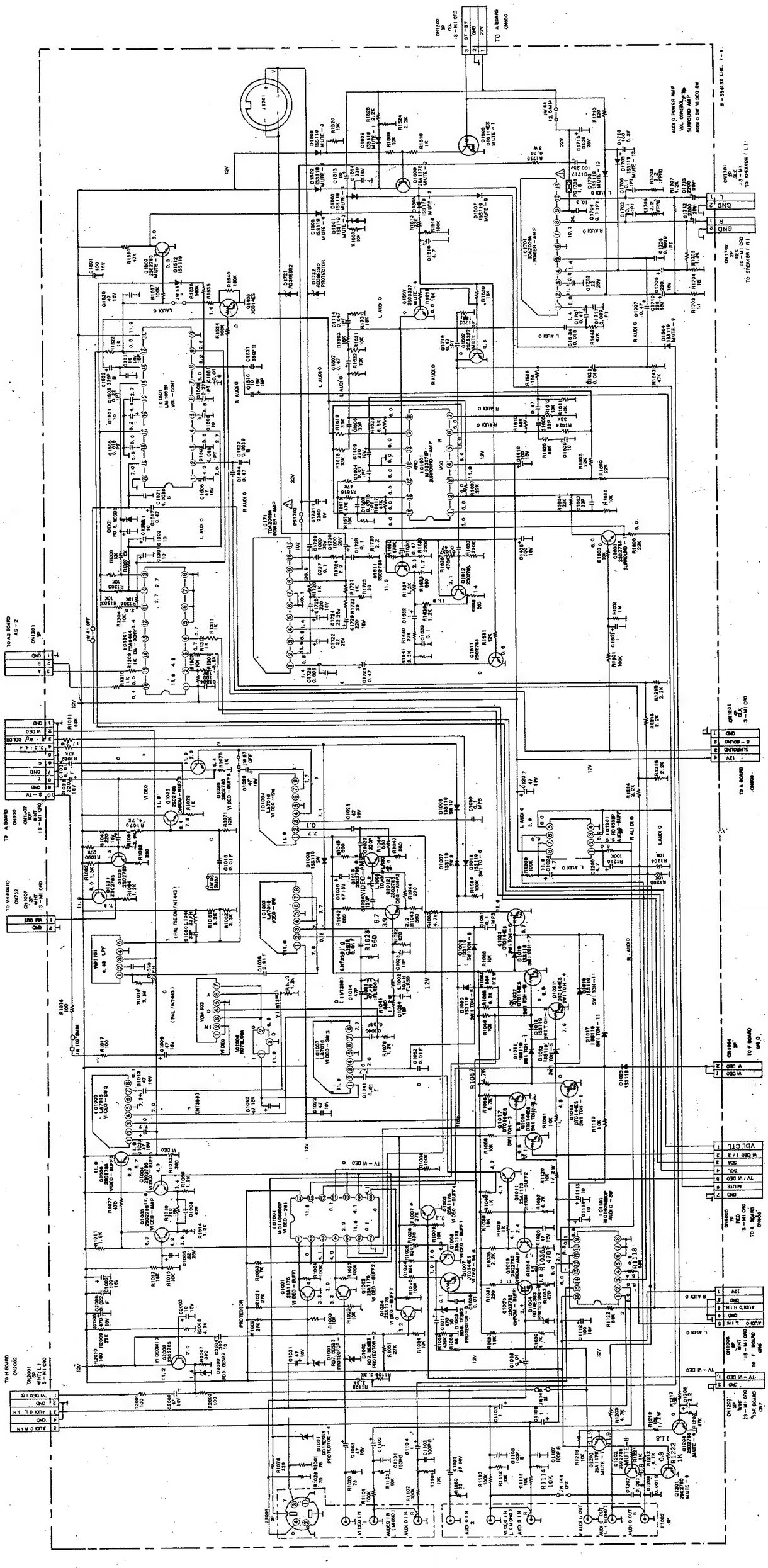


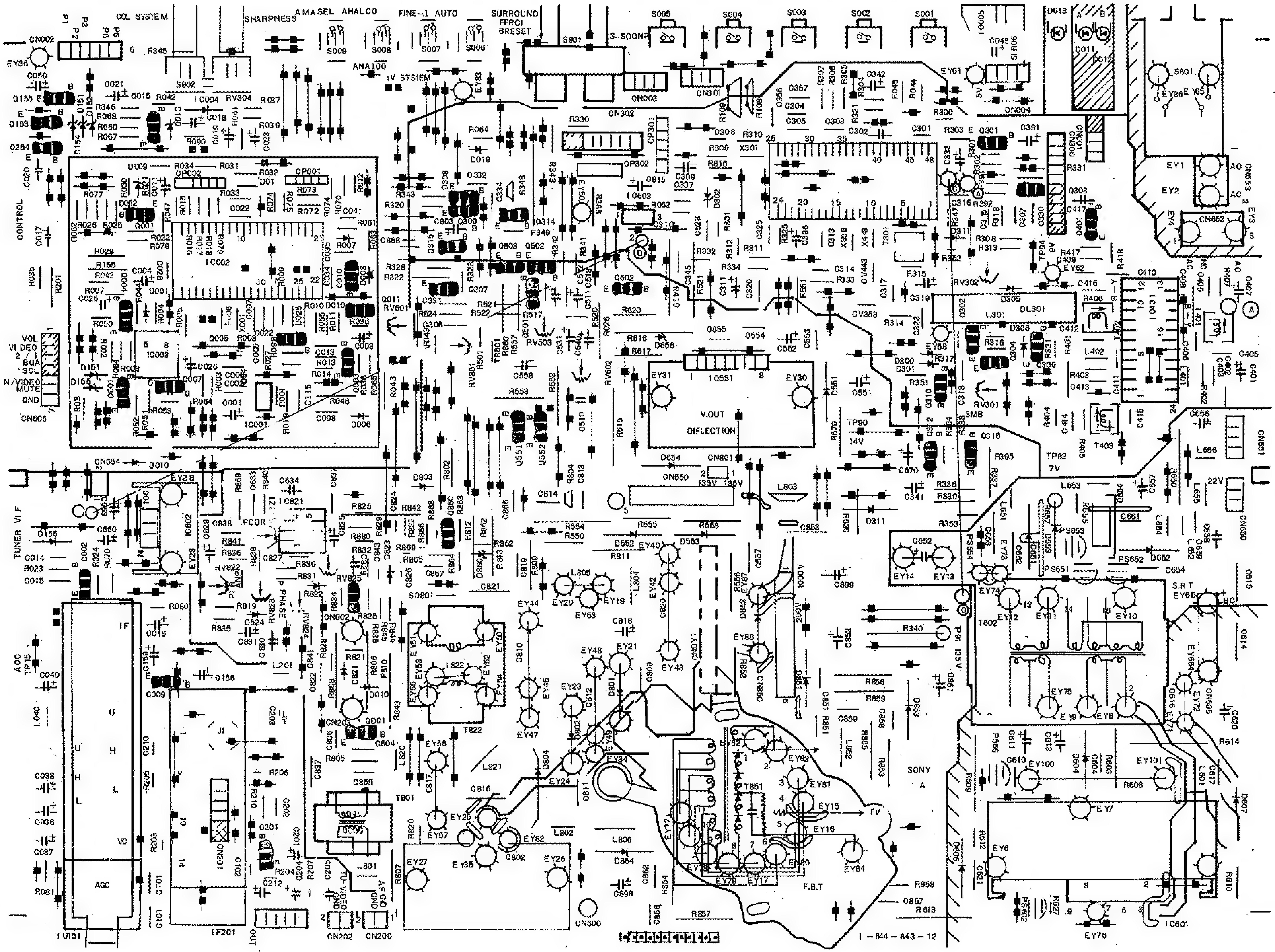
J1 . Board



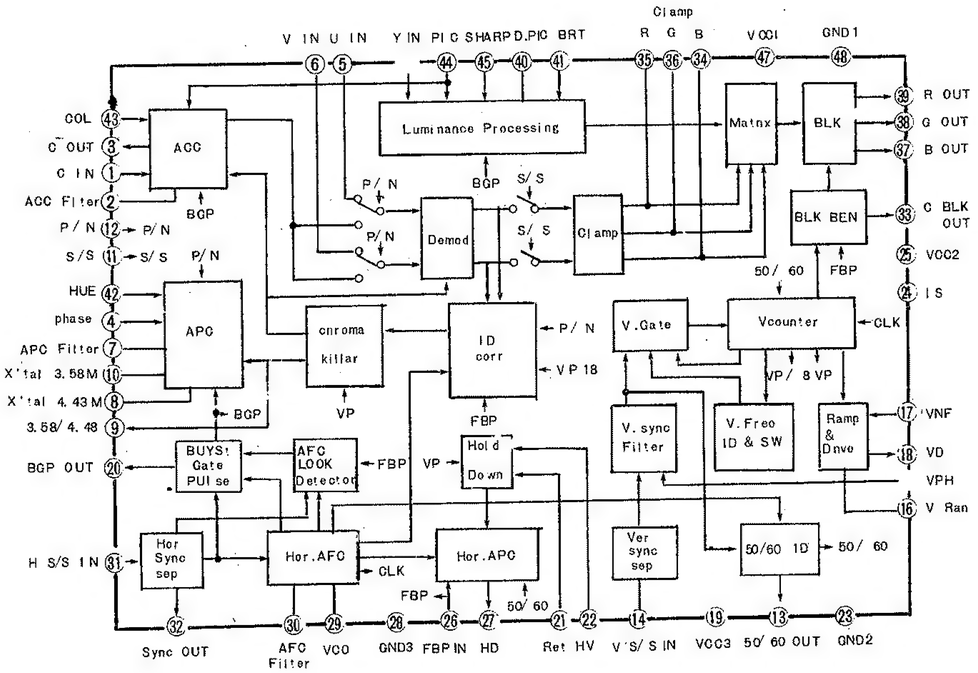
J2. Board

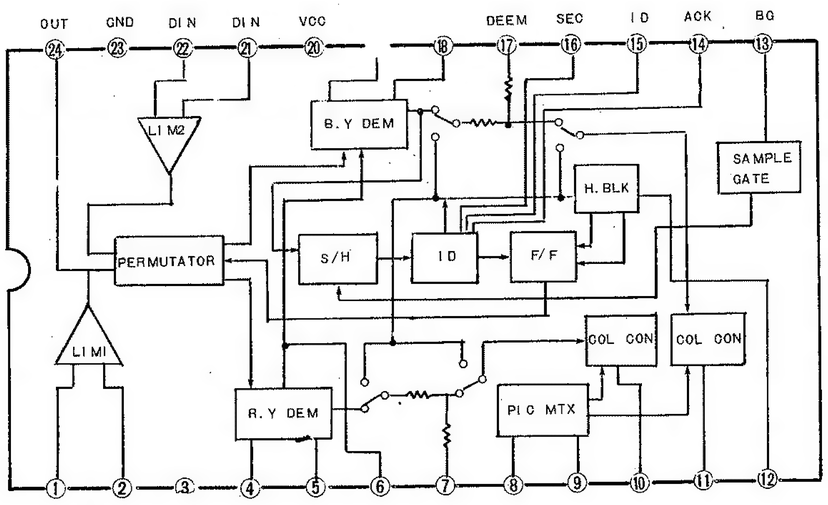


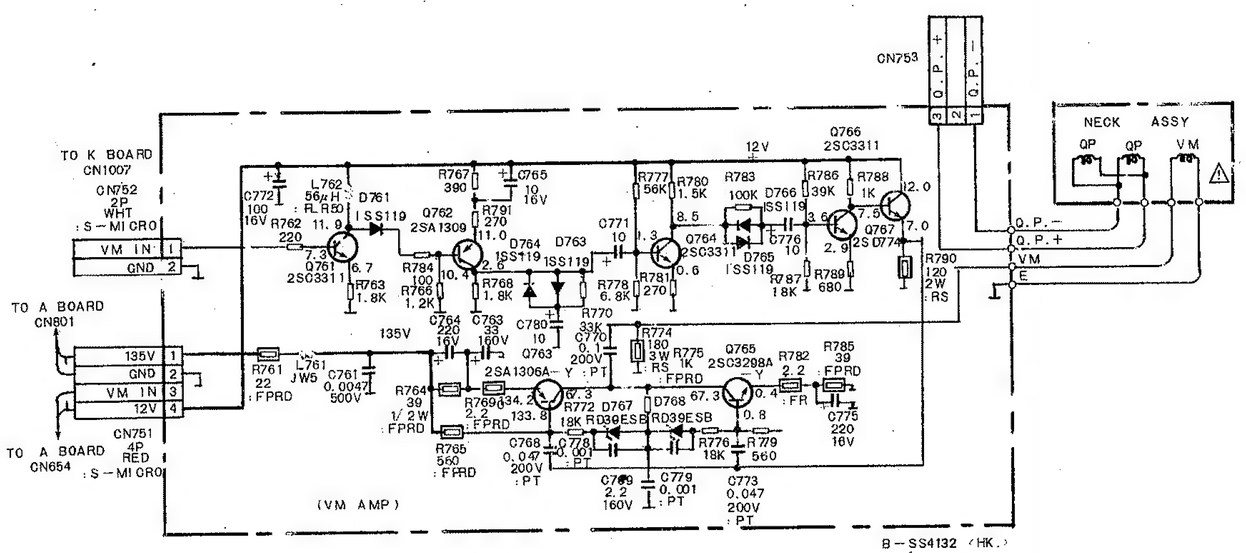


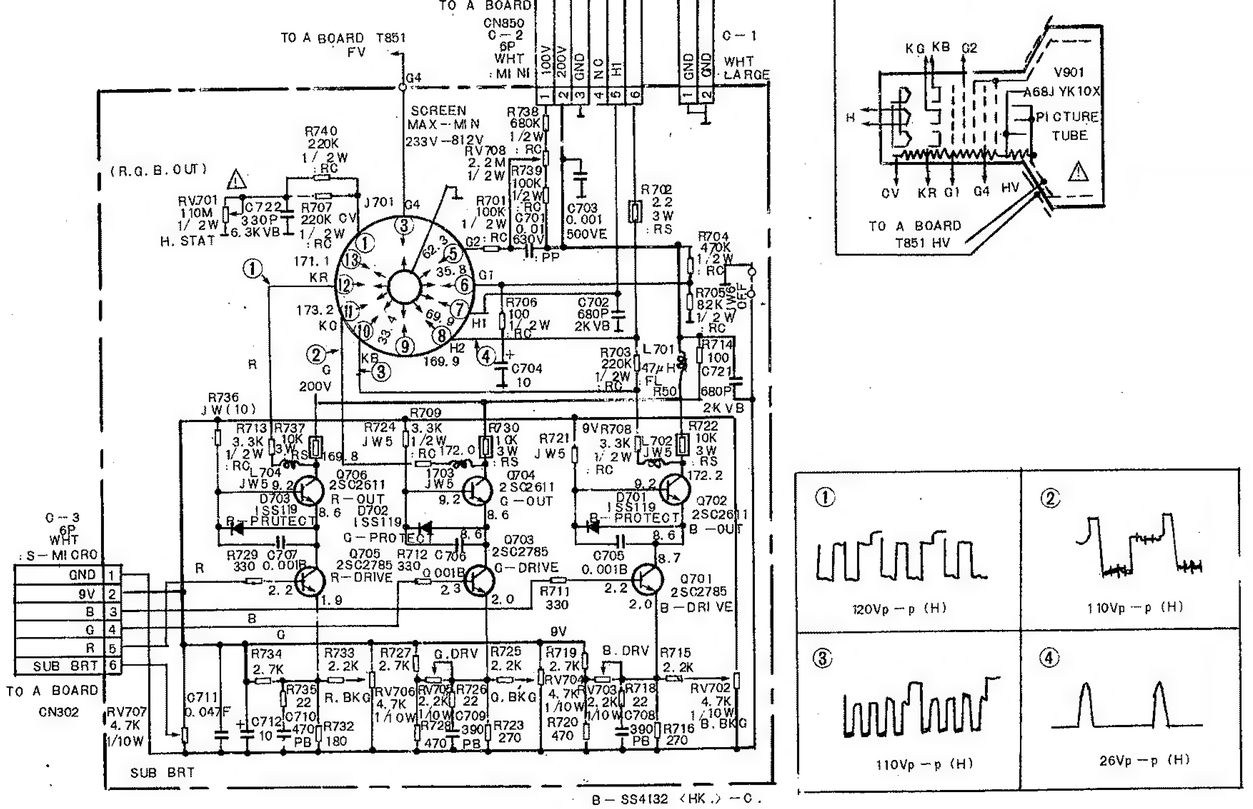


COL SYSTEM
SHARPNESS
AMASEL AHALOO
FINE-1 AUTO
SURROUND
FFRCI
BRESET
S-SOONR
ANA100
1V STSIEM
CONTROL
VOL
VIDEO
2 / 1
BGA
SCL
IN/VIDEO
MUTE
GND
TUNER VIF
AGC
TP15
IF
VC
AGC
TU151
IF201
OUT
TU-VIDEO
GND
AF GND
CN202
CN200
PCOR
PHASE
V.OUT
DIFLECTION
135V
1000V
200V
14V
7V
9V
5V
22V
SMB
F.B.T
FV
SONY
A
S.R.T
R - Y
B - Y
1 - 644 - 843 - 12

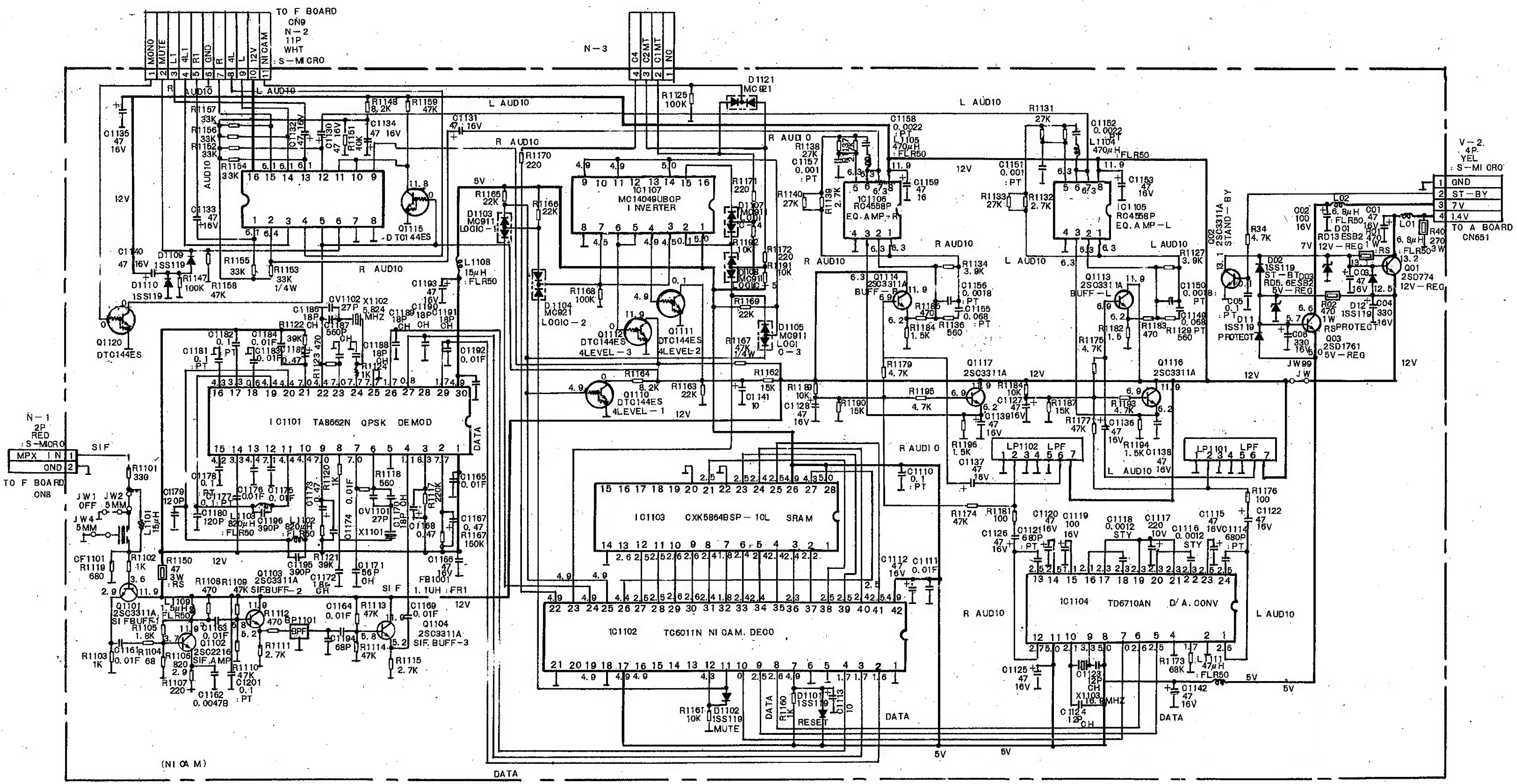

Clamp
V IN U IN
Y IN PIC SHARP
D.PIC BRT
R G B
VCC1
GND1
COL
C OUT
C IN
ACC Filter
P / N
S/S
HUE
phase
APC Filter
X'tal 3.58M
X'tal 4.43M
3.58/4.43
BGP OUT
H S/S IN
ACC
APC
BGP
Luminance Processing
Demod
Clamp
Matrix
BLK
BLK BEN
R OUT
G OUT
B OUT
C BLK OUT
VCC2
IS
chroma killar
VP
ID corr
V.Gate
Vcounter
CLK
VP / 8VP
FBP
50/60
VNF
VD
VPH
V Ran
BUYS! Gate PULse
AFC LOOK Detector
Hold Down
V. sync Filter
V. Freq ID & SW
Ramp & Drive
Hor Sync sep
Hor.AFC
Hor.APC
Ver sync sep
50/60 ID
Sync OUT
AFC Filter
VCO
GND3
FBP IN
HD
Ret HV
V S/S IN
VCC3
50/60 OUT
GND2


OUT
GND
DIN
DIN
VCC
DEEM
SEC
ID
ACK
BG
LIM2
LIMI
B.Y DEM
H. BLK
SAMPLE GATE
PERMUTATOR
S/H
ID
F/F
COL CON
COL CON
R.Y DEM
PIC MTX


TO K BOARD CN1007
CN752 2P WHT : S-MICRO
VM IN
GND
TO A BOARD CN801
135V
GND
VM IN
12V
CN751 4P RED
TO A BOARD CN654 : S-MICRO
(VM AMP)
CN753
O.P.+
O.P.-
NECK ASSY
QP
QP
VM
Q.P.-
Q.P.+
VM
E
12V
B-SS4132 (HK.)


TO A BOARD CN850 C-2 6P WHT : MINI
TO A BOARD T851 FV
C-1 WHT LARGE
SCREEN MAX-MIN 233V-812V
(R.G.B.OUT)
H. STAT
KR
KG
KB
R
G
B
200V
SUB BRT
TO A BOARD CN302
C-3 6P WHT : S-MICRO
GND
9V
B
G
R
SUB BRT
B-SS4132 (HK.)-C.
KG KB G2
V901 A68JYK10X PICTURE TUBE
CV KR G1 G4 HV
TO A BOARD T851 HV

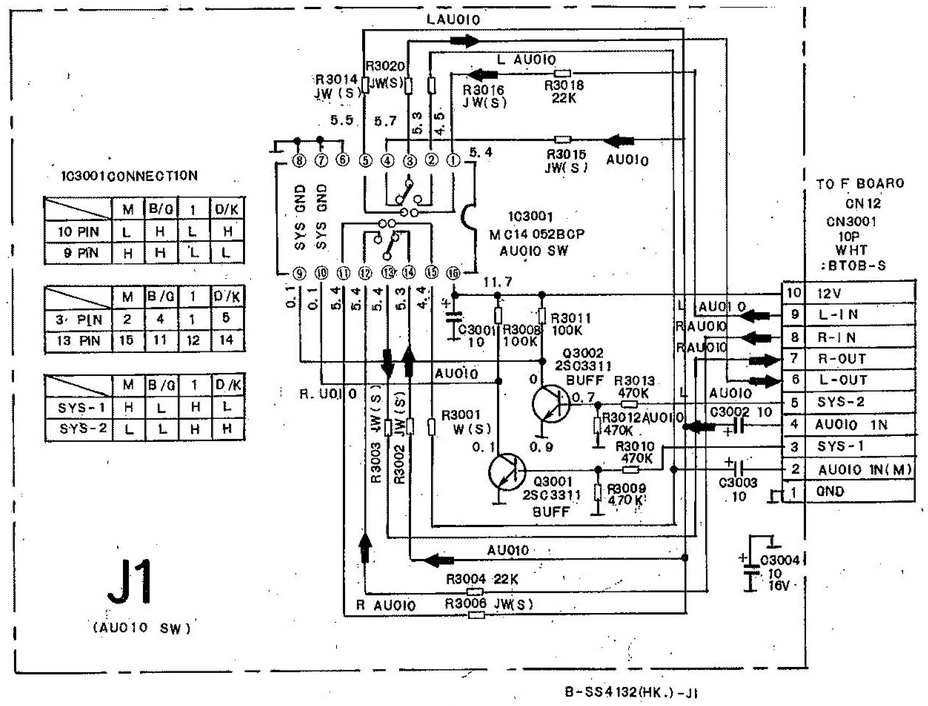
①
120Vp-p (H)
②
110Vp-p (H)
③
110Vp-p (H)
④
26Vp-p (H)



TO F BOARD
CN9
N−2
11P
WHT
: S−MICRO
N−3
V−2.
4P.
YEL
: S−MICRO
GND
ST−BY
7V
14V
TO A BOARD
CN651
N−1
2P
RED
: S−MICRO
MPX IN
GND
TO F BOARD
CN8
SIF
IC1101 TA8662N QPSK DEMOD
IC1107
MC14049UBCP
INVERTER
IC1106
RC4558P
EQ.AMP−R
IC1105
RC4558P
EQ.AMP−L
IC1103 CXK5864BSP−10L SRAM
IC1102 TC6011N NICAM. DECO
IC1104 TD6710AN D/A.CONV
LP1102 LPF
LP1101 LPF
Q1120
DTC144ES
Q1115
DTC144ES
Q1101
2SC3311A
SIF BUFF−1
Q1102
2SC2216
SIF.AMP
Q1103
2SC3311A
SIF BUFF−2
Q1104
2SC3311A
SIF.BUFF−3
Q1110
DTC144ES
4LEVEL−1
Q1111
DTC144ES
4LEVEL−2
Q1112
DTC144ES
4LEVEL−3
Q1113
2SC3311A
BUFF−L
Q1114
2SC3311A
BUFF−R
Q1116
2SC3311A
Q1117
2SC3311A
Q01
2SD774
12V−REG
Q02
2SC3311A
STAND−BY
Q03
2SD1761
5V−REG
D1103
MC911
LOGIC−1
D1104
MC921
LOGIC−2
D1105
MC911
LOGIC−3
D1121
MC921
D1101
1SS119
RESET
D1102
1SS119
MUTE
X1101
5.824MHZ
X1103
16.384MHZ
BPF1101
L AUDIO
R AUDIO
DATA
12V
5V
(NICAM)

K BOARD WAVEFORMS

① PAL/ NTSC 1. 1VP-P (H)	① SECAM 0. 9VP-P (H)	② PAL/ NTSC443 0. 8VP-P (H)
③ PAL/ NTSC4443 2. 2VP-P (H)	③ SECAM 2. 0VP-P (H)	④ PAL/ NTSC443 SECAM 0. 9VP-P (H)
⑤ NTSC358 2. 2VP-P (H)	⑥ NTSC358 2. 0VP-P (H)	⑦ NTSC358 2. 1VP-P (H)
⑧ 0. 9VP-P (H)	⑨ PAL/ NTSC 0. 9VP-P (H)	⑩ NTSC358 1. 0VP-P (H)
⑪ NTSC358 2. 0VP-P (H)		

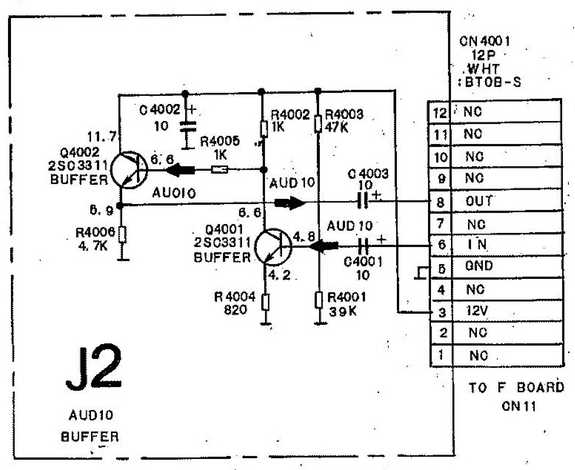


B-SS4132(HK.)-J1

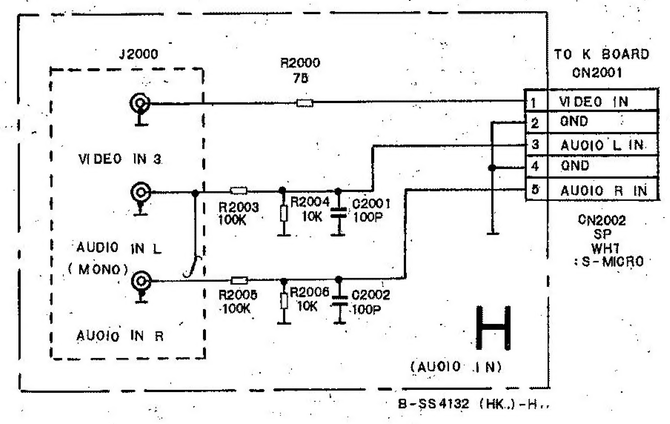
	M	B/G	I	D/K
10 PIN	L	H	L	H
9 PIN	H	H	L	L

	M	B/G	I	D/K
3· PIN	2	4	1	5
13 PIN	15	11	12	14

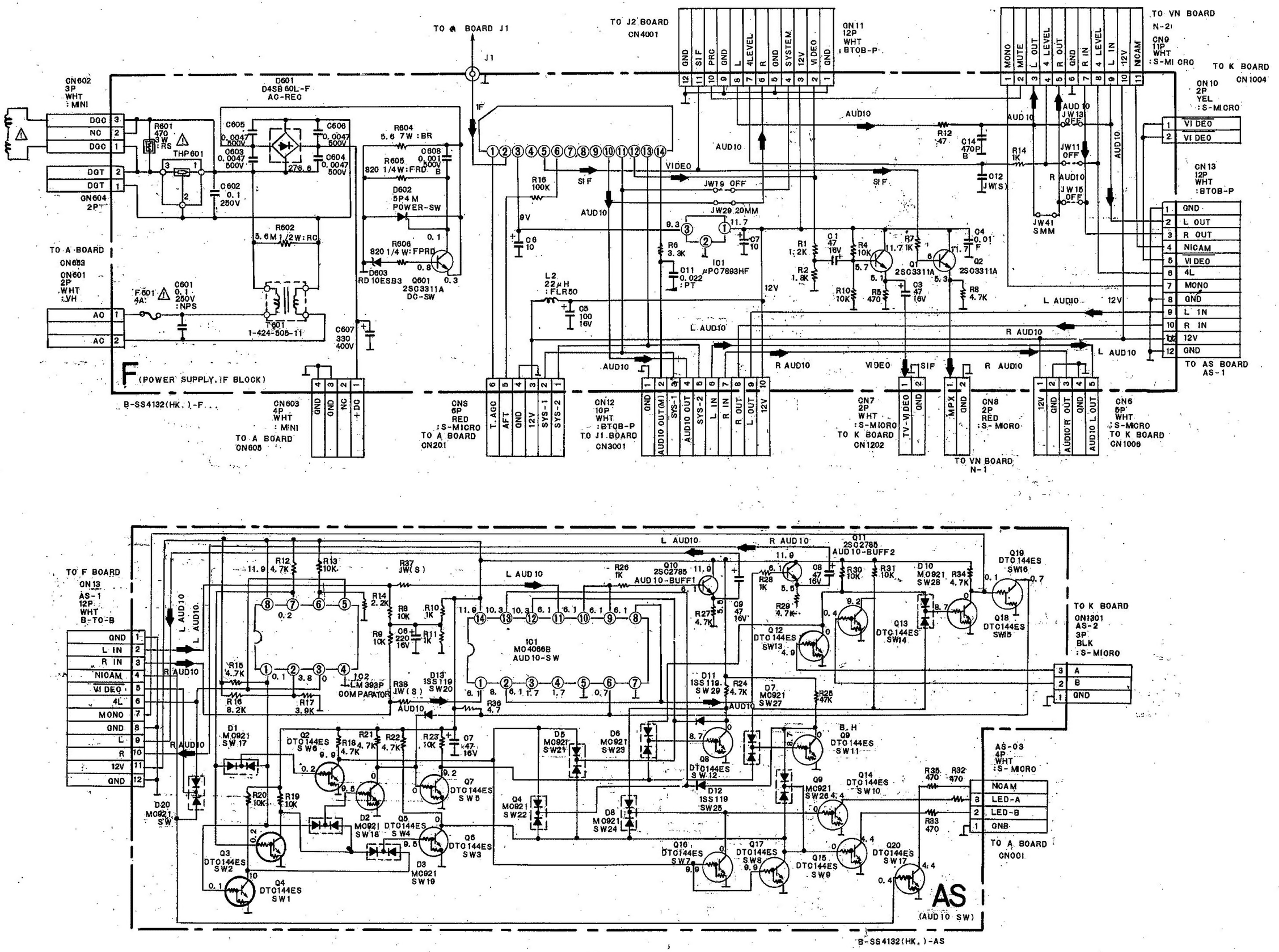
	M	B/G	I	D/K
SYS-1	H	L	H	L
SYS-2	L	L	H	H



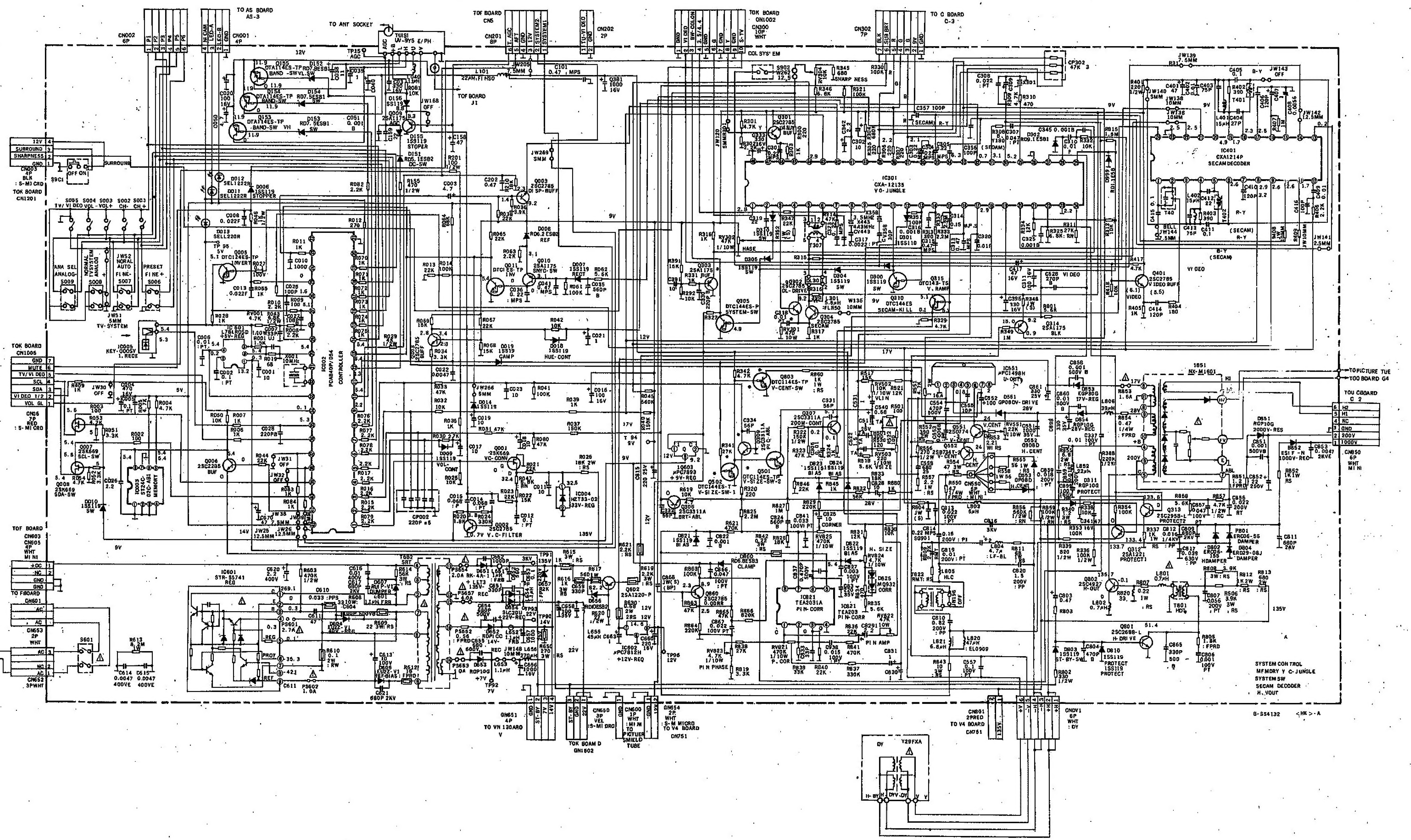
B-SS4132 (HK.)-J2

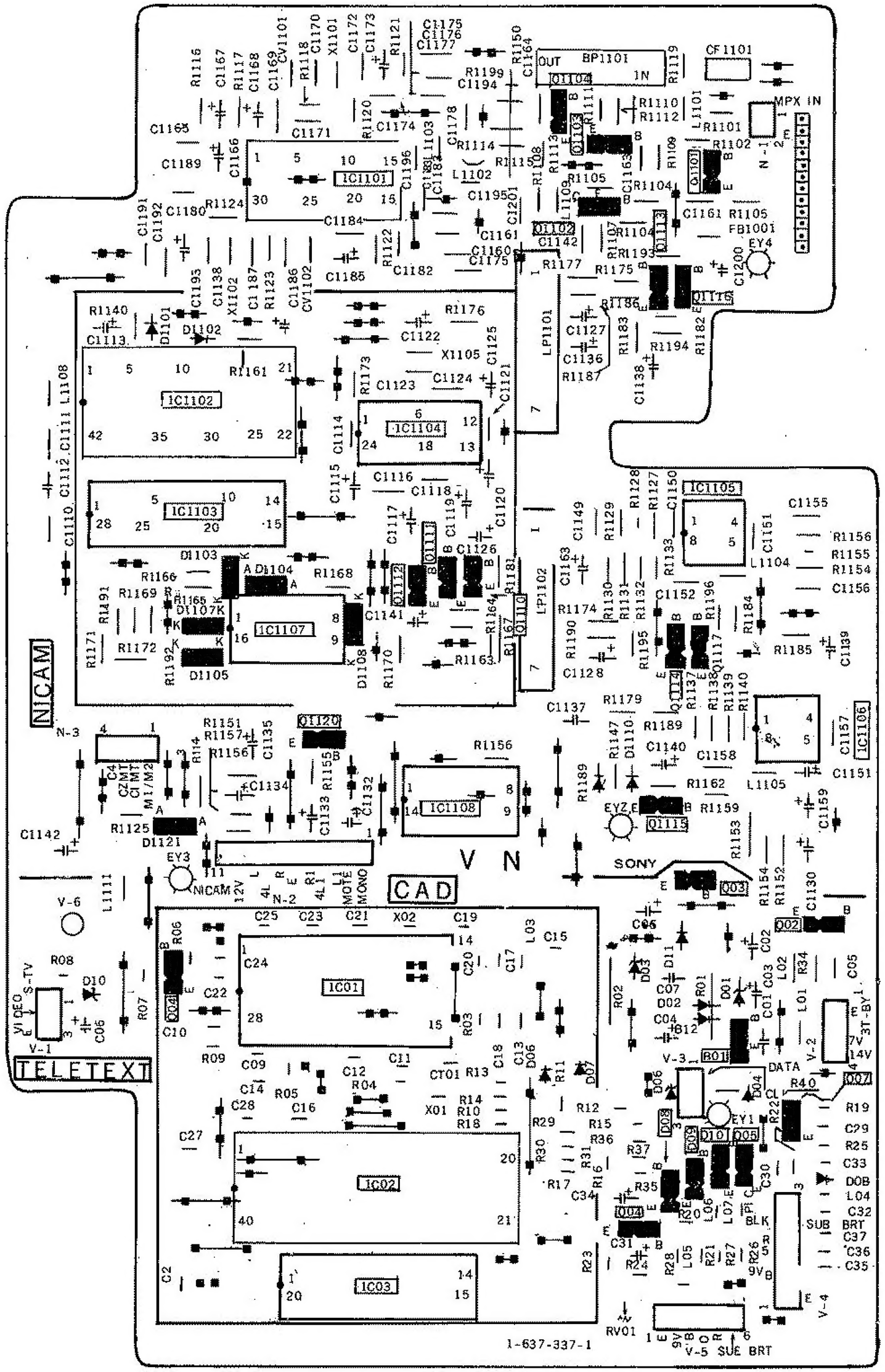


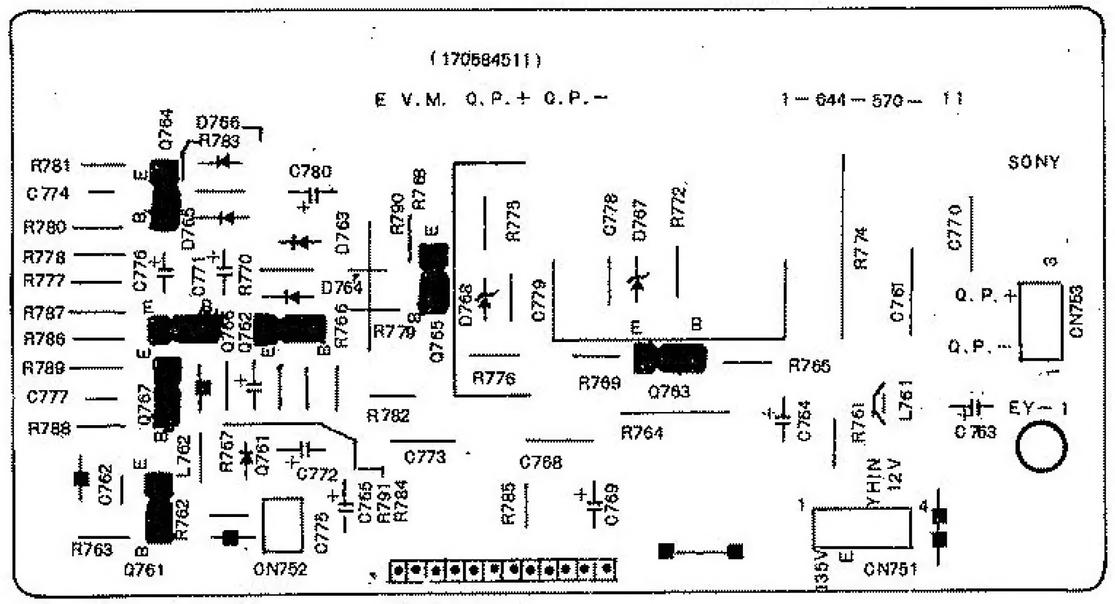
B-SS4132 (HK.)-H

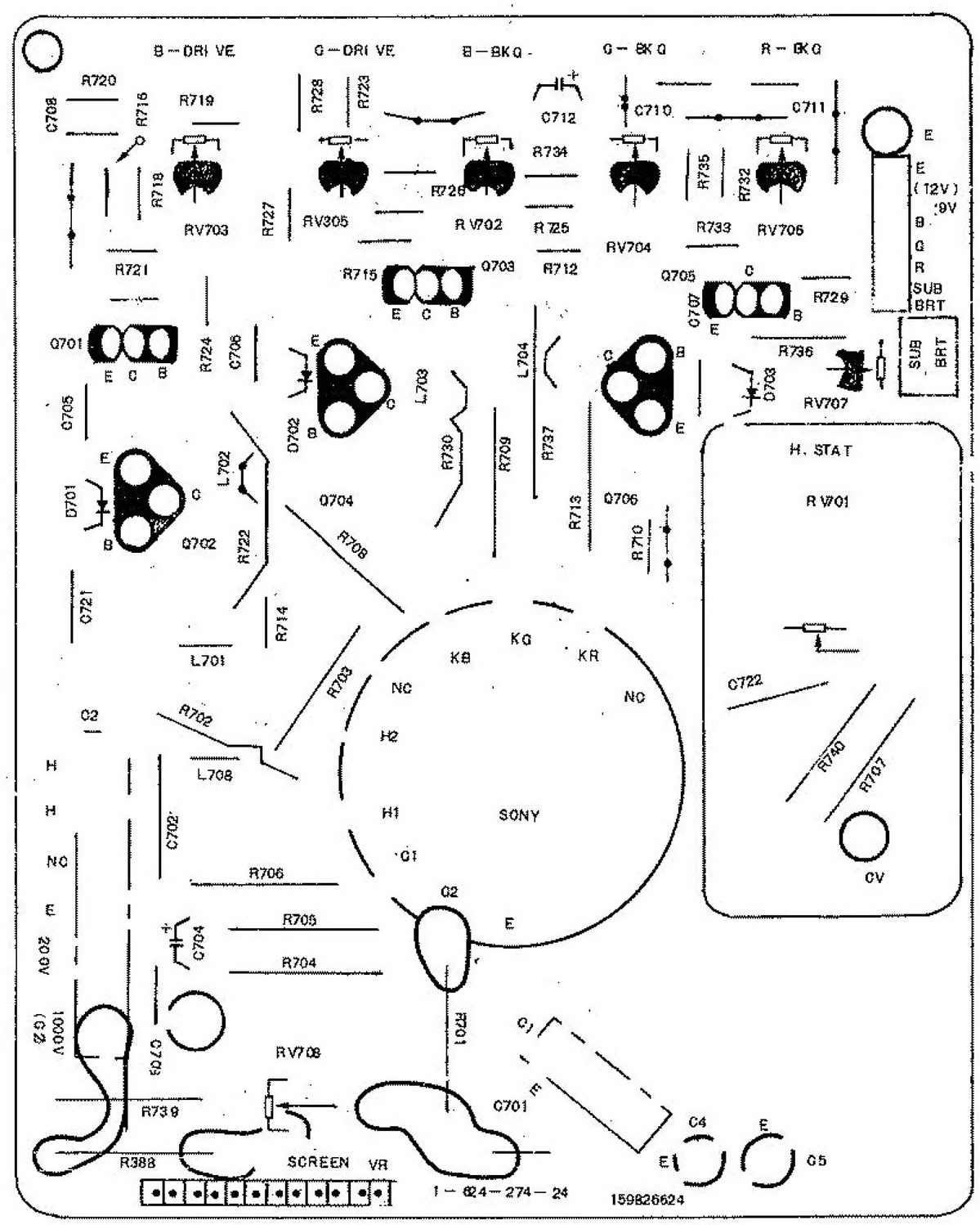

TO A BOARD J1
TO J2 BOARD CN4001
CN11 12P WHT :BTOB-P
TO VN BOARD N-2
CN9 11P WHT :S-MICRO
TO K BOARD CN1004
CN10 2P YEL :S-MICRO
CN13 12P WHT :BTOB-P
TO AS BOARD AS-1
CN602 3P WHT :MINI
CN604 2P
D601 D4SB60L-F AC-REC
THP601
R601 470 3W :RS
R602 5.6M 1/2W :RC
C601 0.1 250V :NPS
F601 4A
T601 1-424-505-11
C602 0.1 250V
C603 0.0047 500V
C604 0.0047 500V
C605 0.0047 500V
C606 0.0047 500V
C607 330 400V
R604 5.6 7W :BR
R605 820 1/4W :FRD
C608 0.001 500V
D602 5P4M POWER-SW
R606 820 1/4W :FRD
D603 RD10ESB3
Q601 2SC3311A DC-SW
TO A BOARD CN603
CN601 2P WHT :VH
CN603 4P WHT :MINI
TO A BOARD CN605
(POWER SUPPLY, IF BLOCK)
B-SS4132(HK,)-F...
R16 100K
C6 10
L2 22μH :FLR50
C5 100 16V
IC1 μPC7893HF
C11 0.022 :PT
R6 3.3K
C7 10
R1 1.2K
R2 1.8K
R4 10K
R5 470
R10 10K
C3 47 16V
R7 1.7K
R8 4.7K
Q1 2SC3311A
Q2 2SC3311A
C4 0.01 F
C12 JW(S)
R12 47
C14 470P B
R14 1K
JW10 OFF
JW20 20MM
JW11 OFF
JW13 OFF
JW15 OFF
JW41 SMM
AUD10 JW13 OFF
R AUD10 JW15 OFF
CN605 6P RED :S-MICRO TO A BOARD CN201
CN12 10P WHT :BTOB-P TO J1 BOARD CN3001
CN7 2P WHT :S-MICRO TO K BOARD CN1202
CN8 2P RED :S-MICRO
TO VN BOARD N-1
CN6 5P WHT :S-MICRO TO K BOARD CN1006
T.AGC
AFT
SYS-1
SYS-2
AUD10 OUT(M)
AUD10 OUT
L IN
R IN
L OUT
R OUT
TV-VIDEO
MPX
AUD10 R OUT
AUD10 L OUT
VIDEO
SIF
L AUD10
R AUD10
12V
9V

TO F BOARD CN13 AS-1 12P WHT B-TO-B
TO K BOARD CN1301 AS-2 3P BLK :S-MICRO
AS-03 4P WHT :S-MICRO
TO A BOARD CN001
L AUD10
R AUD10
101 MC4066B AUD10-SW
102 LM393P COMPARATOR
Q10 2SC2785 AUD10-BUFF1
Q11 2SC2785 AUD10-BUFF2
D1 MC921 SW17
D2 MC921 SW18
D3 MC921 SW19
D4 MC921 SW22
D5 MC921 SW21
D6 MC921 SW23
D7 MC921 SW27
D8 MC921 SW24
D9 MC921 SW26
D10 MC921 SW28
D11 1SS119 SW29
D12 1SS119 SW25
D13 1SS119 SW20
Q1 DTC144ES SW1
Q2 DTC144ES SW6
Q3 DTC144ES SW2
Q4 DTC144ES SW1
Q5 DTC144ES SW4
Q6 DTC144ES SW3
Q7 DTC144ES SW5
Q8 DTC144ES SW12
Q9 DTC144ES SW11
Q12 DTC144ES SW13
Q13 DTC144ES SW14
Q14 DTC144ES SW10
Q15 DTC144ES SW9
Q16 DTC144ES SW7
Q17 DTC144ES SW8
Q18 DTC144ES SW15
Q19 DTC144ES SW16
Q20 DTC144ES SW17
AS
(AUD10 SW)
B-SS4132(HK,)-AS


SYSTEM CONTROL
MEMORY Y C-JUNGLE
SYSTEM SW
SECAM DECODER
H. VOUT
8-SS4132
<HK>-A


NICAM
TELETEXT
CAD
V N
SONY
1-637-337-1
V-5 SUB BRT


(170584511)
E V.M. Q.P.+ Q.P.−
1−644−570− 11
SONY


B−DRIVE
G−DRIVE
B−BKG
G−BKG
R−BKG
H. STAT
SONY
SCREEN VR
1−624−274−24
159826624